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REPORTS

OF

THE PRESIDENT AND THE TREASURER

OF

HARVARD COLLEGE

1905–06

Published by Harvard University
CAMBRIDGE, MASS.

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1907

C.W.H.

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PRESIDENT'S REPORT FOR 1905-06.

TO THE BOARD OF OVERSEERS:—

The President of the University has the honor to submit the following report for the academic year 1905–06,—namely, from September 28, 1905, to September 27, 1906.

James Mills Peirce, Perkins Professor of Astronomy and Mathematics, died at Cambridge on March 21, 1906, in the seventy-second year of his age. He had recently sent in his resignation to take effect March 1, 1907, at which date he would have filled out fifty years of service. His first appointment was that of Tutor of Mathematics in 1854, when he was only twenty years old. He inherited and fully exemplified the true academic spirit, taught with sympathy and enthusiasm, and filled high administrative positions with a large and steady confidence in freedom. From 1872 to 1895 he was the chief executive officer of the new Graduate School. Though a specialist and a teacher in one field all his life, his intellectual interests were broad, and his good-will embraced all just and generous men.

Nathaniel Southgate Shaler, Professor of Geology and Dean of the Lawrence Scientific School, died at Cambridge on April 10th, 1906, in the sixty-sixth year of his age. He was a University Lecturer in 1864–66 and in 1868; Assistant in the Museum of Comparative Zoölogy from 1865 to 1872; Professor of Palaeontology from 1869 to 1888, and Professor of Geology from 1888 till his death. He was Dean of the Lawrence Scientific School from 1891 till his death. As a teacher Professor Shaler was stimulating, inventive, and adventurous. Both in his lectures and in his field-teaching he took a wide range, dealt abundantly in facts, but also used freely his gift for speculation and prophecy. As an administrator he built up first the Department of Geology, secondly the Summer School, and thirdly the Lawrence Scientific School, with remarkable energy and skill. As a thinker his chief characteristic was fertility. As a man he was sympathetic, vehement, generous, and just. His interests and capacities were extraordinarily various, embracing not only natural history, but also literature, philosophy, and poetry, and the study of all sorts of men.

Christopher Columbus Langdell, Dane Professor of Law, Emeritus, died at Cambridge on July 6th, 1906, in the eighty-first year of his age. He was Dane Professor of Law from 1870 to 1900, Dean of the Law School from 1870 to 1895, and Professor Emeritus from 1900 till his death. As a teacher Professor Langdell's great service was his invention of a new method of teaching law — the case method. He not only conceived the method, but put it into practice by writing the books needed in its application to large classes, and using these books successfully in his own courses of instruction. He thus trained a series of enthusiastic young disciples who in a few years demonstrated that they had a great advantage in their profession over their contemporaries trained in other ways. Some of these disciples became themselves teachers of law, and so spread the case method. Professor Langdell lived to see his invention adopted in most of the leading law schools of the country, and utilized also in teaching government, international law, economics, diplomacy, and medicine. As Dean of the Law School Professor Langdell's main ideas were to raise the standards of admission and graduation, lengthen the period of residence, and compel every candidate for the degree to pursue his studies in an advantageous order, and as means to these ends to enlarge the library and improve its administration. Almost all the measures he advocated were restrictive or repellent; many of them did not commend themselves to the profession; but they resulted, after many years of struggle and doubt, in conspicuous success, demonstrated by the growth of the School, and the careers of its graduates. Professor Langdell was a thoughtful, clear, and original writer on law, and on topics in business which happened to interest him. Nothing could exceed the patience and thoroughness with which he prepared himself to write a lecture, an essay, or a book-notice. His life, like his character, was simple, affectionate, independent, and dignified.

Henry Pickering Bowditch resigned the George Higginson Professorship of Physiology September 1, 1906. Dr. Bowditch was Assistant Professor of Physiology from 1871 to 1876, Professor of Physiology from 1876 to 1903, and George Higginson Professor of Physiology from the establishment of that endowed professorship in 1902 till his resignation. He was also Dean of the Medical School for ten eventful years (1883–1893) of transition and growth. Dr. Bowditch was a physiologist of large experience and wide reputation, a clear and vigorous teacher both in the lecture-room and the laboratory, and a careful and progressive administrator. His term of service covered a period of active reconstruction and progress in medical education, and his good judgment and foresight contributed largely to the success of the efforts of the Harvard Medical Faculty to put their School into a dignified and efficient condition for medical research and teaching, and for public service. He carries with him into his retirement the respect and affection of his associates and his former pupils, and the confidence of the community he has so generously and wisely served.

Allen Danforth, Comptroller, resigned his office in November, 1905, the resignation to take effect on the first of March following. The President and Fellows felt obliged to accept Mr. Danforth's resignation in accordance with his request, although they felt keenly the consequent loss to the University. Mr. Danforth was Bursar from 1874 to 1888, Deputy Treasurer from 1888 to 1898, and Comptroller from 1898 to 1906. In each of the offices he held, he set a new standard of efficiency, brought about progressive improvements in the accounts, archives, and annual statements of the University treasury, and manifested not only the most conscientious exactness in the performance of stated duties, but great devotion in discovering and assuming new tasks which needed to be done. Mr. Danforth knows more about the history of the University property, and about the records of gifts and of the financial acts of the Corporation than any other living person; and since the period of his service has been one of unprecedented property enlargement, his knowledge of this subject is much more extensive than anybody can have had before.

In accepting his resignation the Corporation passed the following vote: —

That Mr. Danforth be requested to continue his researches concerning the University property and records, to make use, at his convenience, of this office, and to continue to give the Corporation the benefit of his unique knowledge of their archives and accounts.

Inasmuch as the University Gazette has been established as an official organ for all University intelligence, deaths and resignations of members of Faculties and other officials will hereafter be published in the University Gazette, and not in the President's Report. Since the President's Report is published but once a year, and in midwinter, it has often happened that the notices of deaths and resignations appeared very late. The University Gazette appears once a week, and is the natural place of publication for resolutions of Faculties, or other University Boards, concerning the members they lose by death or resignation.

The Statutes of the University were amended as follows during the year under review:—

1. By inserting the words "of Arts and Sciences" after the words "Graduate School," wherever the latter appear.
2. By striking out of the second paragraph of Statute VI the words "from among its members."
3. By substituting in Statute IX, "Bachelor in Civil Engineering" for the words "Civil Engineer," and by adding the following words immediately thereafter, namely, "Bachelor in Mechanical Engineering, Bachelor in Electrical Engineering, Bachelor in Architecture, Bachelor in Landscape Architecture, Master of Science in Forestry, Master of Science in Chemistry, Master of Science in Physics, Master of Science in Zoölogy, Master of Science in Geology."

The object of the first of these amendments was to give a more specific official name to the Graduate School, inasmuch as the Schools of Divinity, Law, and Medicine have also become graduate schools, in the sense that they admit those persons only who already hold a Bachelor's degree. The object of the second amendment was to enable persons who are not members of any Faculty to serve on Administrative Boards. The amendment of the ninth Statute was made necessary by the adoption of a new set of degrees to be offered in the Graduate School of Applied

Science, since that School needed degrees having a distinct professional signification and therefore fit to distinguish a long professional training.

In order to relieve their meetings of a mass of administrative details, the President and Fellows, at their meeting of June 26, 1906,

> *Voted*, To establish a Resident Executive Board consisting of the President, the Comptroller, the Bursar, the Inspector of Grounds and Buildings, the Secretary to the Corporation, the Assistant Dean of Harvard College, and the Regent, to serve from June 26, 1906.
>
> *Voted*, That the duty of the Resident Executive Board be to supervise, control, and amend, subject to the authority of the President and Fellows, the business administration of the University touching the maintenance and improvement of grounds, buildings, and equipment, the methods of accounting employed in the management of the several departments, and in the control of appropriations and laboratory fees at their disposal, the adjustment of dormitory rents, the method of assigning rooms to tenants, and such other matters as the President and Fellows may from time to time commit to them.

These votes were immediately put into effect, and their good results are already manifest. The meetings of the President and Fellows can be devoted to the important matters; and yet through the new Board the details of the University's business can be more carefully and intelligently dealt with than ever before. Moreover, it is an advantage for all the officers belonging to the new Board to meet statedly and become familiar in many respects with the methods, actual work, and remediable defects of each other's offices. Heretofore the several offices represented in the Board have known so little of each other's doings that the needed coöperation between these offices was hard to secure.

At the instance of the Board of Overseers, a joint committee consisting of the President of the University as Chairman, three members of the Board of Overseers, and three members of the Corporation, was appointed "to consider what changes are desirable in the organization and administration of the University, and to report thereon within twelve months from this date if practicable." The members of this committee on the part of the Board of Overseers were appointed on April 11, and the members on the part of the Corporation on April 14. Several actual conditions in the administration of the University, and some apprehensions concerning the future administration combined to induce the two governing boards to appoint a committee on this subject. It was unquestionable that the President and Fellows were overloaded with work, and that the number of administrative officers at Cambridge, although increased within a few years, was still insufficient to cope satisfactorily with the administrative work of the Faculty of Arts and Sciences. It was also believed that with the rapid growth of the University the duties of the President had become too burdensome; so that he needed either to be further relieved of details, or to be provided with more assistance. It was apprehended that the probable future increase in the variety and number of matters brought before the President would result either in a diminution of efficiency, or in an inexpedient neglect of the larger subjects because of the pressure of the smaller. The committee entered immediately upon the study of the subject submitted to them, taking the advice of active professors and other interested persons, and trying to learn what the actual situation was in the various administrative offices of the University. The committee had made no report at the beginning of the current academic year.

On October 11, 1905, a committee was appointed by the Board of Overseers, "to consider and report on the courses of instruction in charge of the Faculty of Arts and Sciences in respect to their cost, and the propriety of diminishing or increasing their number." On December 13 following, this committee reported that among the courses intended primarily for undergraduates (the lowest group) there were six half-courses on each of which the attendance was less than ten; among the courses intended for undergraduates and graduates (the middle group) there were 70 courses and half-courses, on each of which the attendance was less than ten, and among the courses and half-courses intended primarily for graduates (the highest group) there were 103 courses and half-courses on each of which the attendance was less than ten. Thereupon the Overseers passed a vote requesting the President of the University "to communicate (to this committee) whatever reasons there may be for continuing instruction in the following courses intended primarily for undergraduates, and attended last year by fewer than ten students each." A similar vote was passed relative to the courses intended for undergraduates and graduates which were attended by fewer than ten students each. No vote was proposed about the courses intended primarily for graduates. The President of the University referred these two votes to the Committee on Instruction of the Faculty of Arts and Sciences. This Committee made a thorough inquiry into the grounds for maintaining every course which stood in the lists provided by the Overseers' Committee and every other course in the lowest and middle groups which for any reason seemed weak. They prepared a complete list of such courses in the lower and middle groups as contained fewer than ten students throughout the academic year 1904–05, and gave some brief reasons for the maintenance of each of these courses. The conclusion arrived at by the Committee on Instruction was as follows: —

> The Committee on Instruction believes that every course, large or small, should be carefully weighed. Some courses are experimental, and if unsuccessful are dropped after a fair trial for which a single year may be quite enough. Several of the courses designated by the Committee of the Overseers have been or are to be voluntarily abandoned by their respective departments. In general, however, investigation (which the Committee on Instruction has found highly profitable) strengthens the belief that nearly all our courses are well worth giving.

In May, 1906, the Overseers' Committee made an elaborate report which was summed up in two resolves, which the Committee submitted for adoption. At a meeting held on December 12, 1906, these resolves were somewhat amended by the Board and were finally adopted in the following form: —

1. That, in the opinion of this Board, no new subject or branch of instruction, involving additional expense, ought to be added to the Courses at present in charge of the Faculty of Arts and Sciences, except after mature deliberation by the Governing Boards of the University.
2. That the Faculty of Arts and Sciences be and hereby is requested to undertake a comprehensive revision of the present scheme of instruction, with a view to securing more concentration of effort, increased educational efficiency, and, if practicable, diminished expenditure.

The Overseers' Committee on Government advised in 1905–06 that inquiry be made in regard to the amount of time and thought given by University teachers to administrative duties; and a special committee of the Faculty of Arts and Sciences was appointed to prepare a reply to a communication from the Board of Overseers on that subject. This Committee made a report to the Faculty near the end of the year 1905–06; and in accordance with its recommendations various reductions in the amount of administrative work asked of teachers have already been made. Thus five Committees on Admission to Harvard College and the Lawrence Scientific School have been replaced by one Committee of five; the Committee on Scholarships and other Aids to Undergraduates has been reduced to an office committee consisting of the Dean and the Assistant Dean of Harvard College, and the Secretary of the Faculty of Arts and Sciences; and the Administrative Boards within the Faculty of Arts and Sciences have been reduced in size. Other measures of this sort are in contemplation. The Committee further recommended "that, if the necessary money could be spared, provision be made for the relief of Divisions and Departments, so far as possible, in their academic correspondence, and in the mechanical work which several Divisions and Departments require." In answer to this recommendation a stenographer has been placed at the disposition of those Chairmen of Divisions and Departments who have heretofore had no such assistance in their official work. The necessary administrative work cannot be distributed evenly among the members of the Faculty of Arts and Sciences. Some members are fit for it and are interested in it; others have no capacity in that direction, and cannot be advantageously employed in such work. The indispensable work is done by those who are interested in it, or who believe that it is a part of their duty to the University; just as the Faculty meetings are maintained by the attendance of the teachers who enjoy them, or think them a regular part of their duty.

In the three years since the opportunity was offered to take degrees in the middle of the academic year, the degrees taken have been distributed as follows: —

	A.B.	S.B.	A.M.	S.M.	Ph.D.	D.M.D.	M.D.	LL.B.	S.T.B.	Totals.
1904 . . .	19	3	2	0	1	1	12	1	1	40
1905 . . .	45	11	8	1	1	2	17	4	0	89
1906 . . .	40	4	2	0	0	0	12	2	0	60

This privilege seems to be most valued in the College and the Medical School; probably because there are more courses which cover only half the year in those Departments than in the others. As yet the existence of this privilege is but little known, and few students make long plans to avail themselves of it. The fact that Harvard University has never permitted candidates for degrees to count a course or two, or a half-course or two, at a time, pursued in discontinuous periods of residence which might extend irregularly over many years, prevents the extensive use at Harvard of the privilege of taking a degree in the middle of the year.

The Faculty of Arts and Sciences accomplished three important pieces of work during the year under review, in all of which its high value as an agency for conference and discussion, and for the selection of the best measure among several was clearly displayed. The first was a recommendation made to the Corporation concerning charging tuition-fees by the course, so that a student who took five or six courses of instruction during any year should pay more than a student who took only four courses; the second was the substitution of a single committee on the admission of undergraduates to Harvard College and the Lawrence Scientific School, whether as regular or as special students, for the five distinct committees which had previously had authority in this field; and the third was the reorganization of the Lawrence Scientific School.

The desire of the Corporation, in asking the Faculty to consider the expediency of charging tuition-fees by the course, was to increase the total receipts from tuition-fees in a just way by requiring students to pay for the instruction they really received in each case, instead of charging merely a uniform lump sum by the year. Under the existing system a man who took his A.B. degree in three years paid $450 for the instruction which enabled him to obtain his degree, while a four years' man paid $600 for the same amount of instruction. A student who chose five courses in each year received 25 per cent. more instruction than a student who chose four courses a year; but the first student paid no more than the second. A student in the Scientific School often received instruction in twenty courses or even twenty-two courses on the way to his degree of Bachelor of Science; but he paid no more than a graduate of the College who received his A.B. for seventeen courses.

The Faculty took up the discussion of this subject on the third of October, 1905, and gave it during several successive weeks the serious attention which its importance demanded. Opinions were much divided, but the following resolution was finally carried by a majority of two to one:

> *Resolved*, That if increase of revenue from tuition-fees be necessary, we recommend, as the least objectionable method of raising it, that a supplementary charge for additional courses be coupled with the present general fee of $150.

The principal propositions considered during the discussion were put into a printed form, and each member of the Faculty was invited to express his opinion thereon in writing by a Yes or a No, 138 members of the Faculty being on duty in Cambridge at that time. These propositions and the vote on each proposition were as follows:—

1. Pecuniary considerations should be kept in the background as much as possible; therefore a single tuition-fee is better than an itemized bill.
   Yes, 90. No, 26. Doubtful, 8.
2. The charge by the course will increase the student's sense of responsibility in choosing his elective courses.
   Yes, 56. No, 43. Doubtful, 25.
3. The three-year man should be charged as much for his instruction as the four-year man.
   Yes, 84. No, 29. Doubtful, 11.
4. The method of charging by the course would operate eventually to the disadvantage of the small, expensive courses.
   Yes, 65. No, 27. Doubtful, 32.
5. An extra fee for "additional" courses would seriously reduce the number of "additional" elections.
   Yes, 90. No, 17. Doubtful, 17.
6. The taking of "additional" courses should not be discouraged.
   Yes, 89. No, 23. Doubtful, 12.
7. Raising the tuition-fee would seriously diminish the resort to the College.
   Yes, 41. No, 47. Doubtful, 36.
8. Raising the tuition-fee would be contrary to the wishes of the great body of graduates and would be regarded as undemocratic.
   Yes, 56. No, 25. Doubtful, 43.

9. A certain percentage of any increased revenue derived from the students should be applied to loans to poor students, thus making the richer students help the poorer.
   Yes, 64. No, 42. Doubtful, 18.
10. If a charge by the course is to be made at all, an annual general or residence fee should also be collected from every student.
    Yes, 85. No, 17. Doubtful, 22.
11. If a charge by the course is to be made at all, the plan should be confined to Harvard College.
    Yes, 78. No, 29. Doubtful, 17.

The Faculty defined additional courses as courses taken in the regular manner in addition to the number required of each student doing full work in his Class, School, or Programme. The Corporation took final action on this subject on December 11, 1905, in the following form: —

Voted,

1. That a supplementary charge of $20 per course for additional courses be coupled with the present fee of $150 (first-year students in the Graduate School and first-year Special Students to be allowed to take five courses without extra charge).
2. That every student be held to have definitively chosen the courses standing in his list at the end of the third complete calendar week of the academic year, and to have assumed liability for the tuition-fees chargeable in respect of the same, whether he pursue all of them or not.
3. That any new course brought into a student's list, whether by change of elective or otherwise, after the date named in paragraph 2, be regarded as an "additional course" subject to the supplementary charge; but this rule is not to apply during the first three weeks of the second half-year to changes in half-courses beginning in that half-year.

The explanations and qualifications contained in these votes were suggested to the Corporation by the Faculty.

It is already clear, from the experience obtained during the past summer and autumn, that this limited amount of charging by the course does increase the student's sense of responsibility in choosing his elective courses; and that this sort of just and moderate increase in the tuition-fees is not likely to diminish the resort to either the College or the Scientific School. It should be understood that the student assumes the same responsibility as to attendance and grades, and is entitled to the same privileges, in an additional study as in those studies which lie within the required amount.

Some subsequent adjustments concerning fees for additional courses were made necessary later in the year by the changes resolved upon in the Lawrence Scientific School, including the establishment of a Graduate School of Applied Science. It was deemed just that students enrolled during 1905-06 in any one of the four-year programmes of the Lawrence Scientific School, or admitted to one of those programmes at the beginning of the year 1906-07, should be permitted, if they transferred their registration to Harvard College as candidates for the degree of S.B. in Harvard College, to do so without incurring the charge of $20 for each additional course; but this is naturally a limited, transitional provision. After the opening of the current year, the Corporation also voted that all students who enter one of the four-year programmes of the Lawrence Scientific School in the year 1907-08 or thereafter be charged a tuition-fee of $175 a year, besides laboratory fees. These programmes are prescribed for the degree of S.B. with designation of the field of study, and the number of courses of instruction prescribed in them is larger than the number prescribed for the degree of Bachelor of Arts.

The probable increase of tuition-fees resulting from all the above changes is variously estimated at from $20,000 to $30,000 a year; but all such estimates are uncertain, because no one can foresee to what extent the habits of the students in electing courses will be modified by the liability to additional tuition-fees. The student who takes his degree in three years will still obtain a decided pecuniary advantage, because he saves his board and lodging in Cambridge for one whole year.

Mr. J. G. Hart, the Secretary of the Faculty, having had an unusual acquaintance with the existing methods of admitting students to undergraduate courses of instruction under the Faculty of Arts and Sciences, because of his service as a member of various Administrative Boards and Committees on Admission and as an officer in charge of admission examinations, the President requested him in the summer of 1905 to prepare an account of the Faculty's methods of admission to Harvard College and the Lawrence Scientific School. On December 4, 1905, Mr. Hart submitted a report on methods of admission, which was sent in print to all members of the Faculty. Five different committees were at that time authorized to deal with candidates for admission, viz.: —

1. The committee on admission examinations, which prepared examination questions, and read examination answers for both the College and the Scientific School, but admitted only to registration in the Freshman Class of Harvard College, and only on the basis of examinations.

2. The committee on admission from other colleges, which admitted students without examination on certificates of work done elsewhere to registration as Sophomores, Juniors, or Seniors, but not as Freshmen.

3. The committee on Special Students, which admitted students with or without examination to courses of instruction, but not to candidacy for a degree.

4. The Administrative Board of the Scientific School, which acted (*a*) as a committee on the admission of regular students by examination, and (*b*) as a committee on the admission of Special Students either with or without examination.

5. The committee on admission from other Scientific Schools, which admitted students without examination on certificates of work done elsewhere.

As results of lack of coöperation among these five committees, persons were admitted in very different stages of preparation for the work they undertook; there was variety and confusion of standards, and great differences in regard to the strictness with which the Catalogue statements concerning the requirements for admission were interpreted and applied in practice. To remedy these evils, Mr. Hart proposed that one committee on admission be established for all undergraduate courses, and that this single committee deal with each case on its own merits.

Mr. Hart further reported that many of the existing rules concerning admission were merely obstructive, being apparently intended to keep men out of Harvard University, rather than to give every candidate a fair chance to show what he was worth. He specified as obstructive rules the following: —

1. A candidate shall not divide his examinations among more than two years.

2. A preliminary candidate shall receive no credit for any examinations passed, unless he passed examinations rated in the aggregate at eight points.

3. A candidate in June who postpones a portion of his examination until September, may not, except with special permission from the Dean, take over again in September examinations in which he has failed in June.

4. A final candidate who fails to secure admission in June must take over again in September all his examinations.

5. A candidate rejected in June who passes examinations counting less than ten points may not be re-examined in September.

All these rules Mr. Hart characterized as unjust and harmful.

The report further pointed out that although the Faculty voted in May, 1904, to join the College Entrance Examination Board, and to authorize the Committee on Admission Examinations to use its discretion in accepting the examinations of that Board in place of a part of the Harvard examinations, the Committee on Admission Examinations and the two Departments of the Classics and Mathematics had really defeated the purpose of the Faculty in joining the Board; so that the Faculty had failed to establish, as they intended, a more available means of approach to the University than its own admission examinations afforded.

The report also called attention to the fact that when a student who had spent one year in another college was admitted to Harvard College on satisfactory evidence of the work he had done, he was compelled to register as a Special Student; if he applied after two years in another college, he was compelled to register as a Sophomore, this lower rating being always unpleasant and often unjust. This practice — the report alleged — distinctly interfered with the free passage of good students of other colleges into Harvard College. Mr. Hart further expressed a belief that the existing system of admission by examination was too narrow, and consequently inefficient as a means of determining, in the individual case, whether a young man might properly be admitted or not. In support of this opinion, he appealed to the experience of the Committee on Special Students to the effect that the majority of the men rejected by the Committee on Admission Examinations, and afterwards admitted as Special Students, did good work; or, in other words, that the Committee on Special Students saved to the

College many men that the College could ill afford to lose. In support of this opinion, he mentioned that during the years 1902, 1903, and 1904, the Committee on Special Students admitted sixty-seven men after they had been rejected by the Committee on Admission Examinations. Of these sixty-seven persons, only nineteen proved unsatisfactory. During these same years, the Committee on Special Students admitted one hundred and two men on certificates of work done elsewhere. Of these one hundred and two, only eleven proved unsatisfactory. The report concluded with the statement that, in its methods of admission, Harvard College does not act in accordance with its own tradition of dealing considerately with each individual according to his personal aims and deserts.

At the meeting of the Faculty which next succeeded the meeting at which this report was presented, the Faculty passed the following vote: —

> *Voted*, That a single committee be appointed to exercise the function of admitting undergraduate students to courses of instruction under the Faculty of Arts and Sciences, with such powers and such discretion as are at present exercised by the various Committees of Admission.

Four weeks later, after consideration of a different proposal, a motion was carried without dissent that the new Committee on Admission be a Committee of five; and on the 30th of January the President appointed the Committee as follows: — Mr. J. G. Hart, Chairman; Professors Sabine and Haskins, Messrs. Greene (Secretary to the Corporation) and Wells (Assistant Dean of Harvard College). This Committee have already held 69 meetings, and have considered 1,132 applications for admission, and 116 applications for transference of registration from one Department to another. Their report is printed in full in the Appendix (p. 335).

With the approval of the Faculty, the five obstructive rules mentioned above have been abolished; the examinations of the College Entrance Examination Board have been made available for admission to Harvard College and the Lawrence Scientific School; and the relations between the University and the secondary schools have been much improved. Moreover, the admission of students has been conducted more equably than ever before, and with more consideration for the individual applicant; and especially the requirements for admission to the Scientific School have been dealt with in practice as well as in theory like the requirements for admission to Harvard College.

The requirements for admission to American colleges have never given satisfaction to the secondary schools, and have recently been criticized as too comprehensive and severe. One strong association of schoolmasters has lately urged that the requirements be reduced in several respects. It is therefore interesting to observe, in the report of the new Committee on Admission, that 76 schools sent to Harvard, in 1906, 201 candidates prepared in more than the required number of subjects, and that of these candidates, 126 entered without conditions and credited with extra subjects (p. 342).

The Committee express regret that the number of Special Students who desire instruction, but have no intention of procuring a degree, is not larger than it is. In some of the German universities situated in large cities, the number of such students, attending university instruction but not candidates for any degree, is much larger than at the urban American universities. Thus in the winter semester of 1904–05, the University of Berlin had 6,434 such Special (unmatriculated) Students.

The work of the new Committee on Admission has been admirably done, but as the Committee state in their report (p. 346) "they have discovered more problems than they have solved . . . and they look forward hopefully to a better adjustment of our methods and requirements to school work."

During the winter of 1905–06 there was much informal discussion, among the Professors and Instructors most intimately concerned with the Lawrence Scientific School, of plans for a reorganization of that School. The failure in the preceding year of the effort to bring about a mutually advantageous affiliation between Harvard University and the Massachusetts Institute of Technology stimulated this discussion, as did also the approach of the time when the bequest of Gordon McKay for the promotion of applied science will begin to be available.

At the end of January the discussion came on actively in the Faculty of Arts and Sciences. The main objects in view were the establishment of a Graduate School of Applied Science parallel with the Schools of Divinity, Law, and Medicine, and the Graduate School of Arts and Sciences; the institution of a degree of Bachelor of Science without any designation of the field of study to be administered by Harvard College; and the bringing about of these changes in the Lawrence Scientific School without losing connection with the numerous schools, public, private and endowed, which were in the habit of sending graduates to the Scientific School.

The Corporation received the recommendations of the Faculty on this subject on the 12th of February, and on the 26th laid down the general lines of the new project in the following votes: —

> *Voted*, That there be established in Harvard College the degree of Bachelor of Science without designation of any field of study, the requirements for admission of students intending to become candidates for this degree to be the same as the present requirements for admission to the Lawrence Scientific School, and the requirements for graduation to be the same as the requirements for the degree of Bachelor of Arts in respect to number of courses required, grade of work demanded, and length of residence;
>
> That there be established in Harvard University a Graduate School of Applied Science;
>
> That the subjects in which degrees may be granted in this Graduate School be, for the present, Engineering, Mining and Metallurgy, Architecture, Landscape Architecture, Forestry, Applied Chemistry, Applied Biology, and Applied Geology;
>
> That a Bachelor's degree or its equivalent be required for admission to the Graduate School of Applied Science;
>
> That the degree of Bachelor of Science with designation of the field of study on completion of any one of the present four-year programmes of the Lawrence Scientific School continue to be offered until the further order of this Board.

The Board of Overseers assented to these votes on the 14th of March following. The Faculty had already laid down the following rules for their own government: —

1. That candidates for the new degree of Bachelor of Science be in the charge of the Administrative Board of Harvard College.
2. That students who intend to enter the Graduate School of Applied Science should select their studies, while undergraduates, with the advice of the Departments in which they intend to enroll.

3. That recommendations for the degrees to be granted in the Graduate School of Applied Science originate with the Divisions or Departments in which the candidates have respectively studied.

By the beginning of the present academic year, it became clear that the degree of Bachelor of Science in Harvard College would be sought by a considerable number of candidates on the terms proposed; that the Graduate School of Applied Science would receive at once a small number of students; that the former four-year programmes of the Lawrence Scientific School, leading to a degree of S.B. with designation of the field of study, would be likely to be maintained for several years to come; and that the Graduate School of Applied Science would be recruited by holders of the A.B. as well as of the S.B. Inasmuch as the total number of students in Harvard College and the Scientific School is greater in 1906–07 than it was in 1905–06, it does not seem probable that the changes made in the Scientific School and its transitional condition have caused any diminution in the resort to the School. It is obvious that the new organization prepares the way for a very advantageous expansion and improvement of the teaching of applied science, whenever the McKay bequest shall begin to become available.

Since the opening of the current year, two of the former programmes in the Lawrence Scientific School have been abolished, all the students in these programmes having been transferred to Harvard College. These two programmes are the programme in General Science and the programme in Anatomy, Physiology, and Hygiene.

When the legislation had been adopted under which Harvard College is to give the degree of Bachelor of Science, and the candidates for this degree are to be under the control of the Administrative Board of Harvard College, the question arose whether such members of Harvard College being candidates, not for the degree of Bachelor of Arts, but for the degree of Bachelor of Science, could properly receive what is called beneficiary aid, that is, small loans or gifts from funds which antedate this amalgamation of the College and Scientific School, or even the establishment of the Scientific School itself. This question being presented to the President and Fellows, they decided that this new sort of student in Harvard College ought to be eligible for beneficiary aid.

The new arrangements tend to unite for purposes of administration two bodies of students already closely bound together by their choice of studies and their social relations, namely, the College undergraduates and the Scientific School undergraduates. The effect of continuing the present four-year programmes of the Scientific School is to give students the alternative of obtaining in four years a degree of Bachelor of Science in a designated field of study, as, for example, architecture or mining engineering, or, on the other hand, of obtaining the degree of Bachelor of Science without designation of any field of study in three, three and one-half, or four years, and then pursuing a course of two or more years in the Graduate School of Applied Science, leading to a professional degree which indicates a high degree of training for a special field. The degrees of the Graduate School of Applied Science will of course stand for a training longer by at least one year, and also broader than the training represented by the four-year S.B. The superior degree will cost about $100 more than the other in tuition-fees, to which must be added the living expenses of at least one additional year.

Inasmuch as the sum of the periods required for a College training and a Law School training, or for a College training and a Divinity School training is now from six to seven years, and the time required for a College training and a Medical School training is from seven to eight years, it seems probable that five or six years may profitably be given to training for any scientific profession. Indeed, the scientific professions cannot expect to reach the level of the older professions, until the young men who adopt the scientific professions receive as long and thorough a training as their contemporaries receive for Divinity, Law, or Medicine. At present, young men who have not completed even four years of training are tempted to enter the scientific professions prematurely by the keen commercial demand for their services. It will be the aim of Harvard University to put the scientific professions on an equality with the older ones, so far as the training provided for them is concerned.

The Corporation, being desirous to impose appropriate fees for all services rendered to individual students outside of the instruction for which the annual fee of $150 is charged, were glad to accept the suggestion made in 1904–05 by the Faculty of Arts and Sciences that fees should be charged for both examinations for admission, the preliminary and the final, in accordance with the practice of the College Entrance Examination Board, and also that a fee of $3 should be charged for an examination to make up a condition at entrance, and the same fee for an examination to make up an omitted examination in College, and for an examination in anticipation of a subject of College instruction, this latter examination if passed enabling the student to count the course for his degree.

The $5 fee for the final admission examination to Harvard College and the Lawrence Scientific School, in addition to the $5 fee for the preliminary examination, could be collected from only a few persons in June, 1906, because notice of the imposition of this fee had been too short. This fee hereafter may be expected to yield not less than four thousand dollars a year. The $3 fees yielded in the year under review $3,667. These are all fees paid for extra services, and they are paid only by those students who receive those services. When this system is given full effect, which may be expected in the year now current, it will more than defray all the expenses of the admission examinations, of the examinations to make up conditions received at the admission examinations, of omitted college examinations, and of anticipatory examinations. The justice and propriety of thus charging appropriate fees for examinations have not been questioned in any quarter.

An interesting proposal made by Professor T. W. Richards was studied by the Faculty of Arts and Sciences at several meetings during the year, and was the subject of much private discussion. It was a proposal to the effect that the degree of Bachelor of Arts might be won by passing examinations not in a specified uniform number of courses, but in a smaller number of courses with high grades, or a larger number of courses with low or medium grades, or, in other words, that a high scholar should attain his bachelor's degree with fewer courses than a poor scholar. The general principle might be given effect in a great variety of ways, and possesses considerable attractions. It had bearings, however, on many other Faculty policies, as, for instance, on the obtaining of the degree in three years, on obtaining the degree with distinction, and on increasing the revenue from tuition-fees by charging for additional courses. The Faculty once adopted the general principle by a small majority; but when they came to the consideration of details, they were so discouraged by the apparent complexity of the subject, that they voted by a large majority to postpone it indefinitely. Nevertheless, the Faculty may decide to return to this subject, when some of the problems now in the experimental stage have been disposed of.

An interesting table in the Report of the Dean of the Faculty (p. 90) shows how the enrolments in the different Departments of Instruction may vary in two consecutive years in consequence of fluctuations in the number of students and in the relative attractiveness of the offerings of the several Departments. It makes a difference in the enrolments what professors are on leave of absence, what new teachers join the College staff, and what changes of subjects occur from year to year in the offerings of each individual teacher. It is obvious that some pecuniary difficulties of administration result from these inevitable and in the main desirable fluctuations.

Table XII (p. 144) in the Report of the Dean of the Graduate School of Arts and Sciences shows clearly which Divisions in that School furnish each year a considerable number of persons who are recommended for the higher degrees. They are ancient languages, modern languages, history and political science, philosophy, chemistry, and biology; the modern languages and history and political science far surpassing all others. In the most advanced School of the University, the selection of subjects of study is very similar to the selection made by the undergraduates of Harvard College. The growth of the Graduate School is obviously hindered (p. 155) by the existence of a considerable tuition-fee, the School being in direct competition with graduate schools elsewhere in which there is either no tuition-fee or a much smaller one.

The students of the Divinity School come from many colleges and many theological seminaries. In 1905–06, 25 colleges and 12 theological seminaries were represented among the 42 students.

The Summer School of Theology, which is resorted to chiefly by settled ministers and persons interested in Sunday School work, has during the last eight years contained representatives from 16 different religious denominations. In the summer of 1906, ministers belonging to 11 different denominations attended the School, and only 9 out of these 53 ministers belonged to the Unitarian and Universalist bodies. All the evidence points to the conclusion that the University has succeeded in establishing a polydenominational Divinity School.

In March last, the Faculty accepted the invitation of the Trustees of the Lowell Institute to provide a course of public lectures on theology in King's Chapel, Boston, in the winter of 1906–07, the lectures to treat various theological themes in a scientific manner without technicalities. This course has been highly successful from every point of view.

Langdell Hall, the new building for the Law School, will, it is hoped, be finished by the opening of the year 1907–08. Only about three-fifths of the projected building is to be constructed now; but the land for the remainder of the building will of course be reserved. The interior arrangements of the Hall have been carefully studied by members of the Faculty as well as by the architects, and it is hoped that they will prove thoroughly satisfactory. The Corporation had the benefit of the advice of a committee of three eminent architects both as to the site and as to the design of the building. The Hall is to be fireproof, and its exterior is made of a cream-colored stone. In the final letter (1 July, 1904) of the advising architects, Messrs. Robert S. Peabody, Francis W. Chandler, and George Russell Shaw, about the building and its site, the following passage occurs: —

> If built here (on the actual site) we should certainly have the building of a grey tone to harmonize well with Austin Hall. We think this might be gained in stone, but we should feel entirely satisfied with grey bricks and limestone that would tone well with Hastings as well as Austin Hall.
>
> As to the architectural style that would be employed, our united feeling is that the general quiet appearance of the new quadrangles will be enhanced if the buildings surrounding them have no striking variations of style.

The Corporation sanctioned the plans approved by this Committee, although the design and scale of Langdell Hall and the material adopted for its exterior did not seem to them to harmonize with any of the surrounding buildings.

Since 1904–05 there has been a distinct pause in the growth of the Law School, but the numbers are now larger than they were in 1902–03 or in any previous year. The slight losses have occurred chiefly in graduates of Harvard College, the number of graduates of other colleges having continued to increase. The explanation suggested by the Dean of the School (p. 166) is probably correct; for in June, 1906, a majority of the graduating class of Harvard College were intending to go into business of one sort or another.

The new buildings of the Medical School were ready for occupancy at the close of the academic year under review, and a special celebration of this important event in the history of the School was arranged for Tuesday and Wednesday, September 25 and 26, 1906. The exercises of the first day were held in the new buildings, those of the second day in Sanders Theatre. The exercises of Tuesday took place in the open air, on the terrace in front of the Administration Building at the head of the quadrangle about which the five buildings stand. Professor J. Collins Warren gave an address on "The Enlarged Foundation." The President of the University accepted the buildings from the architects. Dean William L. Richardson spoke on behalf of the Faculty of Medicine, Professor Thomas Dwight for "The Laboratories," and Professor Frederick C. Shattuck for "The Clinics." A few words of solemn dedication were then pronounced by the President. A clear sky made the whole scene beautiful and memorable. On the second day, the celebration was held in Sanders Theatre, where the President of the University gave an address on the Future of Medicine, and Professor W. H. Welch, of Johns Hopkins University, an address on the Unity of the Medical Sciences, and ten honorary degrees were conferred, one of Doctor of Arts, one of Doctor of Science, and eight of Doctor of Laws. Five of the recipients were Americans and five were foreign visitors. The degree of Doctor of Arts was then conferred for the first time by Harvard University, as the result of brief discussion in the Corporation and Board of Overseers as to an honorary degree suitable for the architect of the new buildings. This incidental action, taken without any careful previous consideration, is likely to have far-reaching consequences. The celebration was closed by a largely attended dinner of the Harvard Medical Alumni Association in Memorial Hall. The whole of the second day's celebration emphasized the close University connection of the Medical School, a connection which has been of high value to both the School and the University for thirty-five years past. Both of the public ceremonies and the gathering of the Medical Alumni were dignified and adorned by noble music, admirably rendered by a chorus mainly composed of graduates of the Medical School.

The buildings and the permanent funds which accompanied them constitute the largest single addition to the resources of the University which has been placed in the hands of the Corporation since it received its Charter in 1650. Up to October 1, 1906, the land on which they stand has cost with interest approximately $371,000, and the buildings have cost with interest approximately $2,492,000, including the grading of the grounds and the cost of the fixtures and furniture to that date. Four of the five buildings may properly be called laboratories; the fifth is devoted chiefly to administration and to the Warren Museum. They were brought into existence by the prophetic insight and the zeal of a few of the University's teachers of Medicine, and by the public spirit and intelligent generosity of a few score men and women who welcomed the opportunity to do some lasting and far-reaching good in the world; and the great achievement was made possible by the high standing of the Medical Profession in Boston and the vicinity for more than a hundred years. They are devoted to the teaching of the medical and surgical arts and to the pursuit of the biological and medical sciences. In the near future, these buildings for teaching and research will be surrounded by four new hospitals, this grouping of the School with active hospitals having been part of the original plan at the time the purchase of the land was made by the University. Three of these hospitals take each a portion of the land which the University originally bought between Huntington and Longwood Avenues. The buildings of the School have been very thoughtfully adapted to their uses. Doubtless some changes of detail will need to be made, and some new constructions not of large amount may prove to be desirable, but it will doubtless be possible to close the construction account before the end of the current academic year.

The Corporation hope that the additional endowments which came to the School with the new buildings will prove to be sufficient for carrying on the School in a modest way in the new buildings; but it is already plain that to utilize thoroughly the ample equipment with which the School is now furnished, additional endowment will be indispensable. All the activities of the School, and especially its activity in medical and surgical research, ought to be greatly enlarged; but these enlargements cannot be effected without considerable additions to the existing endowments of the School.

Among the new endowments of the Medical School which were received in connection with its great undertaking to erect new buildings are several permanent endowments to support members of the staff. Thus, the Curatorship of the Museum has been endowed by the Henry Jackson Fund, a Professorship of Clinical Surgery has been endowed by the John Homans Fund, and a Professorship of Neurology by the William Story Bullard Fund. An Instructorship in Theory and Practice has also been permanently endowed, and ought to prove a stimulating example of a kind of endowment desirable in many other Departments of the University. The Corporation gladly accepted these endowments of indispensable functions in the Medical School, and gave proof of their hearty belief in the permanent value of al such endowments, in whatever department, by assigning the Henry Villard Fund to the partial support of the new Professorship of the History of German Culture, as soon as that Professorship was established. The Henry Villard Fund is an unrestricted Fund received by the University in 1902.

The Faculty of Medicine took an important step when they decided in the year under review to open all their courses of instruction to Special Students and to students in other Departments of the University. This opportunity is a valuable one, not only for students who have not yet attained the degree of Doctor of Medicine, but for practitioners who are already at work. The Division of Surgery and the Department of Theory and Practice have each established a laboratory for giving students and practitioners special training in the chemical, microscopical, and bacteriological methods employed in diagnosis and in medical research. This action recognizes the obvious fact that medical and surgical practitioners have become dependent in their practice on the laboratory examinations through which they make their diagnoses, and are guided to the proper treatment. In the working of the new elective system in the fourth year, it turns out that the Seniors use a large range of topics, but concentrate most on six important subjects taught in that year, viz., anatomy, clinical medicine, theory and practice, pediatrics, surgery, and obstetrics. When one considers that thirty elective courses were offered to choice by Seniors, this concentration on a few courses is only the more suggestive.

Dr. Charles S. Minot was transferred from the Professorship of Histology and Embryology to the new James Stillman Professorship of Comparative Anatomy, and his former Professorship ceased to exist, although the instruction heretofore given in histology and embryology was maintained. It was a part of the understanding with Mr. J. D. Rockefeller at the time his gift of $1,000,000 was received, that this Professorship of Comparative Anatomy should have good quarters, and should be supplied with at least one instructor and one assistant. In the present restricted state of the School, it has been desirable to postpone for a little while the appointment of any new officers in the Department; but it will be the care of the Corporation at an early day to make the new Professorship as effective as possible.

The briefest examination of the Report of the Dean of the Medical School (p. 171) will satisfy anyone that the School is now putting a large part of its energy into medical research. All Departments of the School, including Clinical Medicine and Clinical Surgery, exhibit this tendency. The diminution in the number of students attending the School, consequent on the requirement of a degree for admission, has enabled all the teachers, but especially the laboratory teachers, to give less time to direct teaching and more to investigation. Taken in connection with the fact that far the greater part of the instruction which a medical student now receives is given in laboratories, including the laboratories connected with hospitals, this new development of medical investigation fully accounts for the proportion of laboratories in the new buildings of the Medical School. The lists of papers published by the teachers and students of the Medical School during the year 1905–06 will convince anyone who examines them that medicine and surgery for human beings are hereafter to be furthered largely by the study of the other animals with which man is in contact, the other animals ranging from bacilli and microscopic parasites to large mammals.

The use, in teaching medicine, of Professor Langdell's method of teaching law is rapidly developing. In 1902 there appeared a collection of 169 cases entitled "Studies in Neurological Diagnosis"; in 1904 appeared a smaller volume entitled "Case Teaching in Surgery"; in 1905 a case book on "Orthopedic Surgery"; and in 1906 "Case Teaching in Medicine." In all these books the data of actual cases are clearly presented to the students for study and comparison, and each exercise in the book becomes a sort of consultation over a case between the students and their teacher. The method drills the student in quick, practical, constructive thinking on the data supplied to him, and supplies the teacher with well-considered material for giving very effective lessons in diagnosis, prognosis and treatment. The authors of the books mentioned are all teachers in the Harvard Medical School.

The number of students entering the Dental School declined again in 1905–06, so that the pecuniary condition of the School was even more difficult than before; whereupon the Professors and most of the other teachers of the School voluntarily abandoned their salaries. Nothing can exceed the devotion of these gentlemen, and of the Alumni of the School in general, to the best interests of this Department of the University. They knew that the high standard of admission to the School would reduce the number of students, and yet they advocated that measure and still support it. They feel, however, that the School is laboring under a very serious difficulty in that it has no adequate building, that is, no spacious, well-lighted, and well-equipped laboratories in which to teach operative and mechanical dentistry. Other American schools of lower standard, some older and some newer than the Harvard School, are well equipped in this respect. The Faculty and the Alumni of the Harvard School believe that the immediate erection of a new building is indispensable to the success of the School. A good site has been bought in immediate proximity to the new buildings of the Medical School, but that very neighborhood implies that the building must be fireproof and handsome, and the money to erect it is still lacking, in spite of long-continued and strenuous exertions on the part of several members of the Faculty. The usual public services of the School have been carried on with efficiency, and new services have been undertaken, such as the examination of the teeth of the inmates of a Day Nursery and of the pupils of a large public school in Brookline. Useful laboratory experiments have also been made on dental materials and tooth-washes, and on the action of the saliva. A summer course in dentistry was offered in the summer of 1906 for the first time since 1898. All the teachers in the Summer School volunteered their services. A large proportion of the graduates of the School have agreed to contribute yearly to its needs from their professional earnings, and it is evident that this contribution will reach $2000 a year. In short, the Dental Professors and Instructors and the Dental Alumni are doing their utmost for the School, and the question is whether their efforts are to be rewarded by the adequate endowment of the School. The School is now forty years old, and its entire permanent funds do not exceed $40,000.

The situation of the University Library is briefly this: — Books continue to be received in larger numbers than ever before (p. 206), but the income available for administrative purposes has increased but slightly, in spite of the fact that the Corporation has assigned to the Library the Henry T. Morgan Fund (unrestricted), and a portion of the Henry L. Pierce Fund (unrestricted). At present, the number of volumes added to the Library in a year approaches 19,000; the income available from funds and gifts for the purchase of books is about $24,000; the number of cards added annually to the public card catalogue is about 40,000; and the total cost of administration approaches $45,000 a year. A large part of the cost of administration is of course for care, supervision, and attendance; and charges of this sort should increase with the number of books in the Library and the number of users. The Librarian's estimate (p. 203), that additional income of from $2000 to $5000 a year is urgently needed for administrative purposes, is a moderate one.

The number of books borrowed from the Library during the year has declined for three years past, while the number used in the building has slightly increased. The books on open shelves in the reading-room, together with those in the various special reference libraries in Harvard Hall, Warren House, Emerson Hall, Pierce Hall, Lawrence Hall, Robinson Hall, and elsewhere, amount altogether to over 72,000 volumes, to which direct access can be had by all students who desire to look at them; and most of these books are accessible both day and evening. This distribution of readers, and the corresponding increase in the number of immediately accessible books, are advantageous changes. The summer use of the Library, like all scholarly activities in summer, increases from year to year, and the lending of volumes from the Library to other colleges, schools, and public libraries, and occasionally to individuals residing at a distance, also increases. Much of the usefulness and attractiveness of the University for its students and the public depends on the size of the Library, on the promptness with which it obtains the newest interesting books, and on the efficiency and liberality of its administration. Any need of the Library is therefore a need of the whole University.

The Chemical Laboratory continues to do a large amount of teaching, both elementary and advanced, and of varied work in chemical research, in spite of the fact that Boylston Hall is not adequate to the needs of the Department. The advanced work is restricted because of the deficiencies of the building (p. 239).

The attention of the Overseers is especially invited to that portion of the report of the Director of the Botanic Garden which relates to the Harvard Botanical Station in Cuba (p. 232). This station has now been in successful operation for about six years. It is supported wholly by Mr. Edwin F. Atkins, of Boston, on his estate near Cienfuegos. The Station is intended for the production and study of new varieties of sugar-cane; but it deals with other important economic plants of the tropics, and it cultivates a considerable number of vegetables in order to ascertain whether the range of Cuban horticulture may not be profitably increased. The Station now possesses several hundred new varieties of sugar-cane, all of which merit the careful study they are receiving.

The following extract from the report by Professor Hollis for the Division of Engineering deserves the special attention of the Overseers, and of all Harvard graduates (p. 247): —

> The preparation of students for professional work under the present system of instruction seems to be in the main sufficient, as is proven by the readiness with which they find employment after graduation. The Engineering Division has always taken an interest in seeing that its graduates are well placed as soon as possible after Commencement; and up to this time no graduate has failed to obtain a situation to start with. During the last two years there have been many more places open than there have been men to fill them, and the Division is in constant receipt of requests for additional men, graduated from the University, for employment in engineering positions. Many such applications have to go begging every year. That our graduates are usually acceptable to their employers is shown by good reports of their work. On the Civil Service examinations for places connected with important public works they have been strikingly successful.
>
> While Engineering has been steadily making its way in the University, and our graduates have become known to employers of engineers, the graduates of the Academic Department of Harvard of classes between 1870 and 1880 have a very inadequate knowledge of the relatively large place occupied by Engineering under the Faculty of Arts and Sciences.

Emerson Hall was dedicated and opened for use in the middle of the year 1905–06. It provides in a spacious and handsome way for the Department of Philosophy, including the courses on Social Ethics, and its convenient lecture-rooms are used by several other Departments, so far as they can be without intruding on the Department of Philosophy. The entire third story is devoted to the Psychological Laboratory. The whole building was handsomely furnished and thoroughly equipped by the use of gifts for these purposes from two benefactors who desire that their names shall not be mentioned. The special library for philosophy and the library for social ethics are well arranged on the second story of the Hall, and special gifts have made it possible to add liberally to the number of books in these libraries, and to provide a librarian and adequate assistance in each library. The Hall is a very valuable addition to the resources of the Faculty of Arts and Sciences. A description of the Psychological Laboratory by its Director will be found in the annual report on the Laboratory (p. 252).

Mr. Alexander Agassiz continues to make large gifts to the Museum of Comparative Zoölogy. They have been applied to one enlargement of the building, to the renovation of the building from cellar to roof, to the building of new cases, and to the purchase of some very remarkable specimens, such as a magnificent Manchurian tiger, three hartebeests, and a beautiful specimen of the Okapi, a rare animal related to the giraffe and found in the forests of the Congo. The publications of the Museum for the year amounted to 162 quarto pages, 731 octavo pages, and 161 plates, of which 110 were quarto and 51 were octavo.

The Department of Mining and Metallurgy is conducting an interesting experiment in what is called the intensive system of instruction. Instead of carrying on five courses at a time in different mining and metallurgical subjects, the student carries on one course at a time, giving about a fifth of the year to each course. It is the experience of the Department that more work is accomplished in this way, and the interest of both student and teacher is better sustained. An additional advantage is that a student may enter even late in the year and yet finish a complete body of work. On the other hand, time lost in such a course through illness or otherwise cannot be made up in the same year. The experiment is tried under some disadvantages, because the other courses of instruction, which mining and metallurgical students need to attend, are carried on in the usual manner of three periods a week The results of the experiment have been so satisfactory to the Department that the system will be extended as far as possible to the higher courses which are to form part of the Department's programme in the new Graduate School of Applied Science (p. 284).

In this Department, summer work is required of all students, and is carried on in considerable variety (p. 286). The Chairman of the Department states vigorously (p. 286) the needs of the Department. They are, briefly, enlargements of the Rotch Building, a better library, the extension of the summer instruction, and a small mine of its own, the mine to be some abandoned property in New England which could be bought and equipped for a moderate sum, and maintained as a laboratory at a small annual cost.

One of the interesting gifts of the year was received by the Peabody Museum of American Archaeology and Ethnology through Professor Putnam from the American Museum of Natural History in New York, under the circumstances set forth in the following letter: —

> MY DEAR PROFESSOR PUTNAM: —
>
> President Jesup feels that the American Museum ought to do something to recognize the fifty years that you have spent in scientific work at a sister institution, and I am therefore authorized to state, for him, that if you will commission Mr. Willoughby, or some other representative, to come to New York, at our expense, we will give him permission to select ethnological material sufficient to fully illustrate the life of the inhabitants of the Philippine Islands, leaving you to make such disposition of this collection as you may think best.
>
> With expressions of the most sincere personal regard,
> I am ever,
> Very truly yours,
> (Signed) H. C. BUMPUS, *Director*.

This transaction is a delightful instance of appropriate recognition of the services of a veteran student, and of friendly coöperation between sister institutions.

The report of the Director of the Fogg Art Museum (p. 303) shows clearly the increasing value and usefulness of the Museum. The character of the collections — originally prints, casts, and photographs — has been improved by gifts of original objects of high merit from graduates and other friends; and the extent of the collections has so increased that some enlargements of the building cannot be long postponed. The Director suggests coöperation with the Classical Department which has begun a collection of Classical antiquities.

The Emperor William Fund for the benefit of the Germanic Museum has reached the proposed sum of $25,000 and its income has begun to be available for the maintenance and improvement of the collections. The Handbook of the Museum prepared by Professor Francke contains a succinct description of the whole collection now installed. His Majesty the King of Saxony has caused to be prepared for the Museum a reproduction of the

Romanesque pulpit of the Church of Wechselburg, and this beautiful monument of thirteenth century North German sculpture is already set up in the Museum. When two additional monuments already ordered shall have been set up, there will be no room left in the present building for further accessions of large objects, and the need of a much larger building will become imperative. It is a matter of congratulation that the present building, which had just been abandoned by the Engineering Department in favor of Pierce Hall when the great gift of the Emperor William was shipped to Cambridge, has proved to be extraordinarily well adapted to the exhibition of the present collection.

The enlargement and improvement of the grounds and buildings of Radcliffe College were much advanced in the year under review. In the year 1907–08, the College will probably begin to enjoy the use of a new dormitory and a new library, and both these buildings will improve substantially the equipment of the College. Doubtless gifts of this sort will continue to be received; and they cannot come too soon. More dormitories, lecture rooms, and laboratories could be immediately utilized; but the most pressing need of the College, as the Dean has repeatedly pointed out (p. 315), is undoubtedly a large fund, the income of which could be used to command whatever instruction its students may desire.

The position of Radcliffe College among institutions for the higher education of women is unique in this country. Its tuition-fees are high, and its aids for poor students are few. Its teachers are all men, and the instruction it offers covers the whole range from the elementary courses appropriate to Freshmen to the most advanced instruction needed by a candidate for the Doctorate of Philosophy or Science. Its students have free access to the library and collections of a great University; and it is situated near the centre of a large urban population. Moreover, its standards of admission and graduation are identical with those of Harvard University. In the early years of its existence, the young women who attended it encountered a good many mechanical hardships and difficulties, and had very little common life; but these obstacles to its success have now been removed through the great improvement of its "plant." It is ready for a considerable expansion.

The report of the Committee on the Regulation of Athletic Sports to the President for the year 1905–06 (p. 119) contains much interesting matter. At least twenty-five tennis courts ought to be laid out immediately on Soldier's Field. A new boat-house of very substantial construction, the gift of the family of the late George W. Weld, will be ready for the coming season. The work of draining and filling the Longfellow Marsh has been continued, and the buildings on Soldier's Field have been well maintained. The cost of the Stadium to date has been $309,210.45, and the debt on the Stadium was expected to be about $50,000 on January 1, 1907. The Committee are of the opinion that the athletic expenditures in general reveal an unnecessary extravagance. The Committee state that it was at the initiative of Harvard that the following improvements were made in the rules concerning eligibility: —

1. No student shall be eligible for a University team unless he has completed a full year's work, and passed satisfactorily his examinations for promotion.
2. No student shall be eligible who holds a degree which will admit him at least to the Senior Class.
3. No Special Student shall be eligible until
    - (*a*) he has satisfied entrance requirements equivalent to those required of Freshmen;
    - (*b*) has completed a full year's work;
    - (*c*) and is taking during the year of competition a full year's work.
4. No student shall represent one or more universities or colleges in athletic contests more than three academic years.

These regulations exclude Graduates and Freshmen from University teams in all the sports. Taken together they amount to a great improvement, because they prevent fraudulent membership of College teams and confine membership in them to undergraduates. The Committee called attention to the increase in their duties, and expressed the opinion that the Chairman of the Committee should be enabled to devote his whole time and attention to the duties of that office. They suggest that the Graduate Treasurer ought to be a permanent officer with a good salary, and they further recommend the appointment of a permanent paid Secretary, preferably some one familiar with the University administration. If the receipt of large amounts of gate money is to continue, there would seem to be no reason why these three paid officials should not be appointed by the Corporation and made responsible for the regulation of athletic sports, with or without an advisory committee of graduates and undergraduates.

The Summer School of Arts and Sciences dates officially from 1874, when courses in chemistry and botany were first recognized and described in the University Catalogue. In connection with the Museum of Comparative Zoölogy summer instruction had been earlier offered in geology and zoölogy. No more courses were offered until 1887, when physical education was added. During the four years following, German, French, surveying, physics, and English were added; and in the next year, seven new subjects appeared on the list. Since that year, additional courses have been provided in almost every year, until in the summer of 1906 seventy-five courses were offered in languages, mathematics, architecture, the sciences, pure and applied, education, ethics, sociology, psychology, philosophy, history, pure design, landscape painting, music, and shopwork. From the beginning these summer courses have been open to men and women, and no formal entrance examination has been imposed. More than half of the courses offered may be counted for the bachelor's degree by students in Harvard College, the Lawrence Scientific School, or Radcliffe College. They may be so counted also by any persons who register later in one of these colleges. The courses are chiefly resorted to by teachers already in service, by young men and women who are preparing to be teachers, and by students already in the University; but they are suitable for a large variety of mature students who are at liberty to give six weeks to the exclusive study of one subject or of two kindred subjects. The number of persons who attended the courses on chemistry and botany in 1874 was 45; the number who attended the Summer School of 1906 was 815. More and more members of the University staff get interested in the summer instruction, and find it a useful and enjoyable part of their year's work.

Not only the Summer School of Arts and Sciences, but also the Summer Schools of Theology and of Medicine, are now firmly established as permanent parts of the University. The Engineering Camp at Squam Lake, which is kept open eleven weeks, proves itself more and more valuable; and the field work done in summer by students under the supervision of competent instructors in mining, metallurgy, forestry, geology, physiography, and anthropology increases from year to year. In short, the summer vacation is more and more utilized for serious purposes of instruction.

China having now committed itself definitely to the introduction of a new system of education modelled on that of Japan, the central government has been urging the provincial administrations to send students to western countries. Dr. Charles D. Tenney, an American who, before the government had decided upon the general adoption of the modern education, had organized at Tien Tsing, for the Chinlu Viceroy, a technical school called the Pei Yang University, and had organized and directed the secondary schools of the metropolitan provinces, after that decision was taken, was requested by the northern minister, His Excellency, Ynan Shih-Kai, to take charge of an educational mission to America and England. Money was provided in 1906 for thirty-four students, in addition to whom ten others joined the mission at their own expense. This arrangement was sanctioned by the central government; and it was also provided that twenty students should be sent over every year for an indefinite period at government expense, all to be under the direction of Dr. Tenney. These students are to be divided between Great Britain and America, as the Director may deem wise. They are to receive thorough training in law, different forms of engineering, scientific agriculture, or medicine, before they return to China.

Dr. Tenney brought the whole group to Cambridge in July last with the exception of one student who was detained at the Pacific Coast on account of an alleged disease of the eyes. Rooms for them were engaged in advance in private houses, and the whole group took their meals at Memorial Hall so long as it was open. Special instruction was provided for them as follows: —

(1) A class of seven students received instruction in the elements of English, the effort of the instructor being to help the students to express themselves in English readily and idiomatically, and at the same time to give them some training in the study of such

English writings as are the basis of the examination in English for admission to College. These students had read no English book except Meyer's Ancient History. The books used by them in the class were The Sketch Book and Franklin's Autobiography. Daily themes were also required, the subject being optional. The students generally wrote about some experience in sight-seeing. Every theme was corrected, rewritten, and then again corrected. The instructor, Alfred L. Fish (A.B. 1899, Third-Year Law), says: —

> "As a whole the class pursued the course regularly, very earnestly, and with marked and steady progress. Their average ability seemed to me considerably greater than that of the usual high school class of the same size. One or two of the members did careless work, and showed signs of being demoralized by an excess of sight-seeing. On the other hand, two or three in the class were exceptionally able students, sturdy workers, logical, and at the same time keenly alive to all that was artistic or humorous in the works we read."

(2) Thirty more advanced students in English were divided into two sections of fifteen each, the work consisting principally of preparation for the entrance examination in English for Harvard.

(3) Fourteen students received careful instruction in German in preparation for the entrance examination in elementary German. The instructor for these classes, (2) and (3), Mr. W. J. C. Sharpe (A.B. 1904, First-Year Medicine), writes as follows: —

> "Regarding the mental ability and interest of these students, I have nothing but the highest praise. Their command of English, especially of the written language, was remarkable. Their chief difficulty was the choice of words. Their spelling was excellent. In German, they experienced some difficulty in the translation of German into English, owing to the fact that most of them were obliged to use Chinese as the medium between the two languages. In closing, I desire to mention again the interest which they displayed in their work. I have never seen students so eager and desirous to learn."

(4) A class in French, with special reference to the elementary requirements for admission to Harvard College, conducted by Professor A. B. Myrick of the University of Vermont, was apparently less successful. Professor Myrick was sometimes at a loss how to deal with his students, because of their habitual repression of emotion, and their lack of responsiveness to explanations. They

seemed to him nervous and timid while at work, and to present strong contrasts of brightness and dulness. Professor Myrick wrote: —

> "None of them seem to be the equal of a first-class American student in language work."

The whole group remained in Cambridge for the summer after the close of the Summer School, but in September were distributed among several colleges and technical schools. Fifteen remained at Harvard University, distributed as follows: —

8 in Harvard College, candidates for S.B., Sophomore Class.
5 " " " A.B., " "
1 " " candidate for A.B., Freshman Class.
1 in Medical School, First Year.

These young men from China, doubtless selected with care, well-supported, given time enough abroad to obtain a thorough training, and full of ambition to serve their country, constitute a remarkable and admirable group whose progress and destiny will be watched by the Harvard Faculty with keenest interest for many years to come.

The annual exchange of professors between the University of Berlin and Harvard University established in December, 1904, was successfully carried out in the year 1905–06, Professor Francis Greenwood Peabody serving in Berlin, and Professor Wilhelm Ostwald in Cambridge. In the spring of 1906 it was agreed that the visiting professor at Harvard for the year 1906–07 should be Professor Eugen Kühnemann, of the University of Breslau, and the visiting professor at Berlin should be Professor Theodore W. Richards of Harvard University. Professor Richards's subject in Berlin will be physical chemistry, the same which Dr. Ostwald taught at Harvard last year. Professor Richards's service in Berlin is to cover the second half of the year. Ample laboratory facilities have been kindly provided for him. Professor Kühnemann's subjects in Cambridge are German Literature in the 18th Century and the German Drama of the present Day. His courses on these subjects run through the first half-year and count for the degree. Dr. Kühnemann has also given a shorter course on the "Young Goethe, and Goethe's Faust," open to the public, and largely attended. Professor Kühnemann's public lectures have been greatly enjoyed, and his courses in the German Department have proved very stimulating and profitable.

No exchange of professors has thus far been arranged except with Germany; but through the initiative and generous support of Mr. James H. Hyde, a lecturer at the Sorbonne and some of the provincial universities has been furnished by Harvard University now for three years. In 1904–05, the visiting lecturer was Professor Barrett Wendell; in 1905–06, Assistant Professor George Santayana; and in 1906–07, the lecturer is Assistant Professor Archibald C. Coolidge. This service has proved interesting and instructive to the gentlemen who have accepted it; but it will be harder to maintain an annual course of lectures in France by American professors than it is in Berlin.

The game of foot-ball was somewhat improved by the new rules extorted last year from its creators and managers by the pressure of public opinion. Under the new rules, the game is more visible than before to both officials and spectators, and it is livelier and therefore more interesting to watch. It gives appropriate opportunities to several kinds of natural athlete; and it affords fewer opportunities for foul play and brutality, whether deliberate and planned, or sudden and accidental, than the game under the former rules afforded. Public opinion also compelled the employment of a better kind of official at intercollegiate games, the kind that intended to enforce the rules; although in respect to the number of officials, the recommendation that two umpires be employed was not observed at most of the principal games. The injuries inflicted on the Harvard players were of the same character as were suffered under the former rules, but they were much fewer in number. This improvement was mainly due to the "neutral zone" between the opposing rush lines, and to the requirement that ten yards instead of five be made in three downs. Many injuries were caused, before the "neutral zone" was established, by the rush of the backs into a solid mass of men. It is a moving line into which the backs now plunge. The ten-yard rule made much less profitable the "bucking" of the line. There was more kicking, and fewer violent impacts of masses of men. Hence the diminution in the number of injuries. The open plays did not cause any increase in either the number or the severity of the injuries received. The spirit of the game, however, remains essentially the same. It is properly described by the adjective "fierce," — a term which is commonly applied to the game by its advocates. It therefore remains an undesirable game for gentlemen to play, or for multitudes of spectators to watch. No game is fit for college uses in which men are often so knocked or crushed into insensibility or immobility that it is a question whether by the application of water and stimulants they can be brought to and enabled to go on playing. No game is fit for college uses in which recklessness in causing or suffering serious bodily injuries promotes efficiency, and so is taught and held up for admiration. In hunting, mountain-climbing, boating, and other sports which involve danger, it is not recklessness but good judgment and prudence combined with boldness which promote efficiency. An extreme recklessness remains a grave objection to the game of foot-ball, and it also makes basket-ball and hockey, as developed in recent years, undesirable games.

The immoralities or brutalities connected with particular sports are, however, much less injurious to the educational institutions of the country than the gross exaggeration of all competitive sports which is now working incalculable harm to schools, colleges, and universities. This evil began in the colleges, and has worked down into the secondary schools. It is for the colleges to set the example in repressing it. The means of repression are at hand; it is the will and the courage to repress which are lacking. The first step should be to limit closely the number of intercollegiate contests in each sport. Two such contests in each sport would be ample to maintain interest in all the sports. The preparation for these two contests should be procured solely through domestic competitions, the number and variety of these home competitions being much increased. The only proper object of intercollegiate competition is the development of the largest possible number of players in each sport at each institution. It has been proved in rowing, that one intercollegiate contest is sufficient to develop in the contesting colleges a large amount of rowing and of home competition. From the educational point of view, the value of any sport is to be tested chiefly by the number of persons who habitually take active part in it for pleasure during the educational period, and enjoy it in after life. Tried by this test, foot-ball is the least valuable of all college sports.

The exaggeration of athletic sports, and particularly of intercollegiate games, leads to a great waste of money on coaches, travel, training-tables, and supplies. The total direct expenditures for athletic sports at Harvard College in the year 1904–05 was $63,487.12, of which sum foot-ball took more than a quarter, and base-ball more than a sixth. That sum of money would have paid the salaries of twelve full professors. The direct expenditure for athletic sports is, however, much less than the indirect expenditure, in which students, graduates of the University, and the public become involved. Every important game of intercollegiate foot-ball causes the spectators to expend hundreds of thousands of dollars in travel and gate money; and every considerable base-ball game causes similar heavy expenditure, although not on the same scale as for foot-ball. Fortunately, the gate money taken at the games in which Harvard students have a part is sufficient to meet all the direct expenses of athletic sports at Harvard, and to leave a surplus for the improvement of the athletic grounds and buildings. For many years the Treasury of the University has paid nothing whatever towards the cost of the competitive athletic sports, and neither the playgrounds nor the buildings on them have been a charge on the University. The fact that it is not the University's money which is wasted does not, however, invalidate the statement that the exaggeration of athletic sports leads to a great waste of money. One of the sources of waste of money is the belief that no team or crew can do its best unless it is stimulated by a continuous roar of cheering from at least a thousand throats. While spontaneous applause for good playing on either side is an exhilarating feature of competitive sports, continuous, pumped cheering during good and bad playing alike is absolutely unnatural, and has no counterpart in the contests of real life. For games at a distance from home, this so-called "support" is very costly: but, even when they hear it, it answers no useful purpose with the players. The most intense players hear it only at intervals. On the part of the spectators, it is a weak, hysterical, and utterly ineffective demonstration; yet it is held up as a patriotic duty to loyal students in every college.

The highly competitive sports are defended by many college graduates, members of Faculties, and school teachers on the ground that the sports in general promote, first, bodily health, and secondly, morality. There are elements of truth in this contention. It is true that active exercise, even though exaggerated, is healthier than inertness and sloth, and that brutality is better on the whole than effeminacy. It is also true that any form of labor or play which fatigues, and gives full play to the superfluous energies of youth, contributes to the maintenance of a sound mind and a firm will in a vigorous body; but all these good effects can be obtained in two hours a day of moderate activity in sports free from brutality, cheating, and recklessness. The sports which are so exaggerated as to exhaust the players, and make them incapable of intellectual work in that part of the day when they are not playing, are not so wholesome as the more moderate sports. Both at school and at college the popular competitive sports now take away the time and interest of the players from physical exercises which can be combined with intellectual exercises, such as country excursions on foot, visits to industries, or field study of any of the different forms of natural history. The American secondary schools have distinctly lost ground within the last twenty years; because the afternoons are so generally devoted throughout the year to competitive games of ball, and the boys' daily conversation runs on the games, instead of on their reading, their walks, or the sights and sounds of real life in city or country. The same distractions have impaired the intellectual quality of college life.

It is also maintained by many superficial, and some serious, thinkers, that the violent or fierce athletic sports protect the players against immorality and vice. Temporarily they may, because of the rules of training, just as a prize fighter is temporarily protected from himself while he is in training; but no doctrine can be more dangerous, if a permanent defence is intended or hoped for. The only trustworthy defence against low vice of every form, including all the most ruinous vices, is moral conviction and the firm will to abide by moral convictions. The young man who is taught that he may substitute for moral convictions the physical fatigue which results from sport is in a dangerous situation. As a defence, eight hours a day of steady productive labor is vastly better than the furious spasms of competitive sport; but it is a familiar fact that eight hours a day of strenuous labor will not protect the young man who has no moral defences against the indulgence of his lower propensities and passions. Mere bodily health and vigor will afford no adequate defence against even the lowest forms of vice, much less against the vices which look to young men pleasant, or generous, or adventurous. An extreme form of the argument in justification of exaggerated and brutal sports runs as follows: "Many young men are brutes, and they had better have brutal games than brutal vices." The fatal defect in this argument is that brutal games will not protect brutal young men against brutal vices. Such men can only be protected from destruction by giving them moral motives which will master their downward physical proclivities.

It is high time that the whole profession of teaching in school, college, and university united to protest against the present exaggeration of athletic sports during the whole period of education, and especially to bring competitive sports between schools and between colleges within reasonable limits, and to establish the supremacy of intellectual and moral interests over physical interests in all institutions of education. The object of attack should be, not athletic sports, but the gross exaggeration of them.

The Agamemnon of Aeschylus was presented in the Stadium last June by students of the University under the direction of the Greek Department, and especially of a committee consisting of Professors Herbert W. Smyth, Charles B. Gulick, and William F. Harris. The committee worked long and hard, and had invaluable assistance from many colleagues and friends; but to the actors and supernumeraries with their substitutes belongs the largest share of the credit for the admirable presentation of the tragedy. It was a long and strenuous year's work to prepare the presentation. The actors, supernumeraries, and chorus had to be carefully trained, the music had to be created and practised, the stage, costumes, and equipments had to be designed and constructed, and the best conditions for hearing in the Stadium had to be studied and utilized. The students who played the principal parts performed great feats of memory. Two performances were given, one on a somewhat rainy afternoon, and one under a bright sun. Both were eminently successful in all respects; and it remained doubtful whether the cloudy or the clear sky were better suited to an effective presentation of the tragedy. The business management of the undertaking was so good, that the surplus of receipts over expenditures was considerable. This surplus will be used for the benefit of the Greek Department. The performance proved that 6000 to 8000 persons can easily hear a good human voice in the southerly end of the Stadium under the open sky, if a long and high sounding-board be provided behind the speaker.

The following scholarships are maintained by Harvard Clubs, not from the income of funds they established, but by cash payments periodically voted: —

Buffalo,	for the College or Graduate School since 1903 .	$200
Chicago,	" " Graduate School since 1893	300
Cleveland,	" " College or Scientific School for five years, 1906–1910	300
Louisiana,	" " Graduate School for the present	250
Rocky Mountain,	" " College or Graduate School, occasionally since 1890.	
St. Louis,	" " Graduate School since 1900	300
San Francisco,	" " Graduate School since 1886	300

To raise this money locally, and to maintain at Harvard a promising scholar from the Club's locality, is a natural and very useful function for any Harvard Club. By such action the Club is brought into pleasant relations with the local schools and colleges, and extends the influence of Harvard. It is probable that all the strong Clubs will follow in time the good examples already set.

In June, 1906, a gift of $250 was received from Mr. Warren Delano, Jr. (S.B. 1874), for the purpose of providing a meritorious student in the new Graduate School of Applied Science with a Scholarship for one year. Heretofore a Scholarship has generally been considered a downright gift, or an income earned in some sense by good scholarship. The Corporation voted (June 26) that the new Scholarship should be treated as a loan, to be repaid as soon as the recipient had established an adequate earning power. Since that date, several other scholarships have been received to be similarly treated, — that is, they are to be considered loans and not gifts. It is not improbable that in the future many benefactors will prefer to lend money to meritorious students rather than to give them money outright, on the ground that a loan made with good feeling after intimate conversation, on the condition that it be repaid after a suitable interval, is wholesomer for the recipient than a gift. Of late years an increasing distrust has been manifested of the effect of gifts, even for the purpose of education, when it is impossible that the gift should be accepted with any vivid sense of personal obligation to the giver.

Some intelligent experiments were made in 1905–06 on the leasing of the College dormitories. Attractive common-rooms were provided in Conant Hall and the middle entry of Thayer, and hot water heating apparatus was put into the rooms in Conant, Perkins, and Hastings without raising the rents in proportion to the new capital invested. The total rents in Holyoke House and Conant Hall, in spite of improvements made in the buildings, were reduced by $2555. Conant Hall was assigned to students in the Graduate School of Arts and Sciences by preference. It is these dormitories outside the College Yard, including College House, in which the College has suffered during the last five years a serious loss of rent. The above-mentioned experiments have been reasonably successful, since the College will probably receive between $5000 and $6000 more during the current year for rents of rooms in its dormitories than it received during the preceding year.

The fact is, that the needs and desires of students in regard to their rooms have changed very much during the past fifteen or twenty years. The ordinary student occupies his room as a study less than formerly. He passes much of his time in the laboratories and reading rooms provided by the University; he takes his exercise out of doors or in the gymnasium; hence an open fire is a less available mode of heating a college room than it used to be. The student who has been away from his room nearly all day needs to find it warm when he comes to it in the evening. It does not answer his purposes to build a fire then. Again, there are many more students in the University than there used to be who propose to spend there only one, two, or three years (p. 135). Such men prefer furnished rooms to unfurnished, and if they come from a distance, they often prefer a small single room to a larger double room in which a chum is needed. In some of the private dormitories these new needs have been met by allowing three, four, or five students to occupy a suite of three or four rooms; but the College dormitories are not well adapted to such use. The following table shows the great change which has taken place within forty years in the Cambridge departments of the University concerning the lodgings of students.

LODGINGS FOR STUDENTS OF THE CAMBRIDGE DEPARTMENTS OF HARVARD UNIVERSITY IN 1866–67 AND IN 1906–07.

(RADCLIFFE COLLEGE IS NOT INCLUDED.)

	In College Halls.		In Private Halls.		In Private Houses.		Not lodging in Camb.		Totals.	
	1866–67.	1906–07.	1866–67.	1906–07.	1866–67.	1906–07.	1866–67.	1906–07.	1866–67.	1906–07.
Undergraduate departments.										
Harvard College and the Lawrence Scientific School	309	707	13	883	145	537	13	325	480	2452
Graduate departments.										
Graduate School of Arts and Sciences and Graduate School of Applied Science	1	110	1	29	6	192	..	85	8	416
Divinity School	12	16	..	2	1	16	2	5	15	39
Law School	8	123	1	162	129	338	19	69	157	692
Totals	330	956	15	1076	281	1083	34	484	660	3599

It is obvious that the College dormitories play a much smaller part than they formerly did in the provision of rooms for students, that private halls now lodge more persons than the College halls, and that private houses do likewise. Forty years ago there was but one private hall; now there are twenty. Private houses have held their business very well, more than a third of all the students in Cambridge still occupying rooms in such houses. An experience of 270 years with dormitories has demonstrated that they are not good property for the College, it having proved impossible to earn on them so good an income as the mass of the general investments of the University yields. The President and Fellows have not built a dormitory with their own money since 1870–71, and are not likely ever to build another, unless with money given for that express purpose. In spite of the fact that college life in large dormitories is more enjoyable, and, on the whole, more profitable than those students can expect to obtain who live in widely scattered houses, a much larger proportion of students than formerly have no lodgings in Cambridge (see columns 7–8 in the above table). This change has resulted from the improvement in the means of transportation within the metropolitan district. A larger proportion of the University's students than formerly can now conveniently live at home.

The work of the Appointments Office for graduates and undergraduates increases in scope and value as its functions become better known. In the year under review the number of calls to supply men for permanent positions was 971, of which the Office filled 444, divided as follows: —

Permanent teaching positions	260
Permanent educational administrative positions	15
College positions (not teaching)	77
Permanent business positions (non-scientific)	35
Permanent business positions, scientific	57, of which 42 were engineers' positions.

The number of temporary positions filled, mostly by undergraduates, was 1,085. One hundred and ninety-six teachers were supplied to teach one subject, and forty-seven to teach two or more subjects. Three-fifths of the permanent positions were in Massachusetts; New York came next with about one-tenth, and the rest were widely scattered over the United States and foreign parts. The Secretary says that "there is yet much to be done in bringing the Office into communication with the leading business houses in different parts of the country, and in encouraging students of the various Graduate Schools of the University to register at the Office." The Office would be helped by systematic arrangements to bring the Secretary into personal communication with Harvard graduates throughout the country, and with the schools, colleges, and business houses which desire its services.

The Constitution of the Association of the Alumni of Harvard College was amended at the annual meeting on Commencement, June 27, 1906, in a manner which enlarges considerably the membership of the Association. Article I of the Constitution now reads as follows: —

> "Article I. All graduates of Harvard College of at least one year's standing, and all persons who have received any honorary degree from the College, are members of this Association, or are entitled to be so regarded. By 'Harvard College' is meant the departments under the charge of the Faculty of Arts and Sciences, as at present constituted, and by 'graduates,' all holders of a degree received from any one of said departments before or after the formation of the Faculty of Arts and Sciences. All members of the Faculty of Arts and Sciences not otherwise members of this Association shall be honorary members with full privileges."

This Article brings into the Association all holders of a degree received from Harvard College, the Lawrence Scientific School, or the Graduate School of Arts and Sciences, and makes honorary members with full privileges all members of the Faculty of Arts and Sciences not otherwise members. It adds to the membership of the Association about 800 Bachelors of Science, about 30 Civil and Mining Engineers, nearly 400 Doctors of Philosophy, and about 70 Doctors and Masters of Science. It also adds to the Association a considerable number of Masters of Arts, who are not Bachelors of Arts of Harvard College. The Association by this action confirms the new definition of Harvard College used by the Committee which raised the Teachers' Endowment Fund, and recognizes the identity of motive and interest among all the departments under the charge of the Faculty of Arts and Sciences, and their essential unity.

Inquiries are not infrequently made of the President and other officials as to the best form of bequest or gift to Harvard University, sometimes for small endowments and sometimes for large ones. The purposes of intending benefactors are so various, that no single form of bequest or gift can be often used without modification. Nevertheless, guidance can be found in the forms of bequest or gift actually used by benefactors, and thus brought into the records of the Corporation. The following forms of bequest or gift are good types of recent benefactions.

Near the end of his long life, James C. Carter, of the Class of 1850, wrote the following clause in his will: —

Eleventh: I give and bequeath to the President and Fellows of Harvard College the sum of one hundred thousand dollars, which I now wish may be applied in the establishment and maintenance in the Law School of the University of a professorship of General Jurisprudence for the especial cultivation and teaching of the distinctions between the provinces of the written and unwritten law; but I do not intend to control the discretion of the donees in respect to the application of this fund. I mention my present preference. And I further give to the same President and Fellows a further sum of one hundred thousand dollars for the general purposes of the University.

On the 29th of January, 1906, the Treasurer reported to the Corporation the receipt of twenty thousand dollars from the estate of Francis Skinner, of the Class of 1862, under the following clause in his will: —

Fourteenth: I give to the Arnold Arboretum of Harvard University twenty thousand dollars to be applied to its maintenance as may seem best.

At the same meeting of the President and Fellows, the following letter from Robert W. Sayles, of the Class of 1901, was laid before the Board:—

I hereby give to the President and Fellows of Harvard College the sum of five thousand dollars ($5,000.00) to establish a fund, the income of which I desire to be expended under the direction of the Department of Geology and Geography or of the Curator of the Geological Section of the University Museum, at Cambridge, Mass., preferably for the acquisition, preparation, and maintenance of collections suitable for a museum of geology.

In the acquisition of these collections I would have the income of this fund used not only for the purchase of materials, but also to defray the cost of journeys and the other necessary expenses connected with the collection of materials.

I desire that the materials so brought together should be replaced from time to time, where desirable, by better examples, and that the duplicates and discarded materials be used at the discretion of those in charge of the Museum, for exchange or for the teaching collections of the laboratories of the Department of Geology and Geography.

At the Corporation meeting of June 26, 1906, the Treasurer presented the following letter from Edward Reynolds, Chairman of the Committee of the Class of 1881 to raise a Twenty-fifth Anniversary Fund of the Class: —

Enclosed is cheque of E. W. Atkinson and Gardiner M. Lane, Treasurers, No. 5 on the City Trust Co., for $82,500 and sundry pledges guaranteeing payment of $31,276.66 to you on various dates, a total of $113,776.66.

I am requested by the Committee on the Anniversary Fund of the Class of 1881, to hand these to you, and to ask that they be accepted by the President and Fellows of Harvard College on the understanding that the cash now paid, to which shall be added the sums pledged when and as paid, shall constitute a fund, to be known as the "Twenty-fifth Anniversary Fund of the Class of 1881." The use of the income of this fund is to be unrestricted; that is, the President and Fellows may use the income in any way in which they may see fit.

While three of these forms of bequest, or gift, specify special objects, all the forms leave a large discretionary power to the President and Fellows or their representatives. The letter from Mr. Sayles covers all the desirable conditions of any gift for the support of collections, including excellent directions about the renewal of specimens and the disposition of duplicates or discarded materials. The trustees of most museums, whether of natural history, trades, or fine arts, would be thankful if all their endowments were held on such wise terms. The expression used by Mr. Carter with reference to his preference as to the disposition of his fund for a Law Professorship is highly suggestive, —"which I *now* wish." Much experience and observation, during his long career as a lawyer, of the difficulties to which perpetual prescriptions give rise, went into those four words.

The conditions of the Anniversary gift of the Class of 1881 are the widest used by any Class thus far.

The value of unrestricted gifts, or of gifts which leave large discretion to the President and Fellows, is always mounting and becoming more generally recognized; for the trust which the President and Fellows administer is not merely a trust to execute the will of past benefactors who have designated the particular objects of their bounty, — it is much more than that. They must, indeed, keep unimpaired the money they received from past benefactors to provide for the objects specified by them; but they must also have free money to devote to new objects and new methods of instruction not yet visible perhaps to any intending benefactors, though well known to the experts who are directing the operations of the University. They must keep the entire institution eminently serviceable to a rapidly changing society, provide for the future wants of the new generations, and preserve and promote every special trust confided to them by maintaining a progressive policy which keeps in view the interests of the University as a whole. It is the most far-seeing universities, and those most prompt to meet new needs, which will serve their communities best and deserve best of the republic. For such uses the University needs free money. At present Harvard University has only two sources of free money, — namely, unrestricted funds and tuition-fees; and neither of these sources is at present at all adequate. In the competition between American universities, and between American and foreign universities, those universities will inevitably win which have the largest amounts of free money. It remains to be seen whether the governmental supply, as in state universities, or the endowment supply is to prove the better.

The gifts of the year for capital account were $1,859,798.23. The gifts for immediate use were $358,319.98.

GIFTS OF FOUR YEARS.

	Permanent Funds.	Immediate Use.
1902–03	$1,340,876.28	$415,542.12
1903–04	633,988.55	875,575.21
1904–05	1,455,131.97	875,295.59
1905–06	1,859,798.23	358,319.98
	$5,289,795.03	$2,524,732.90

Permanent Funds	$5,289,795.03
Immediate Use	2,524,732.90
Total for four years	$7,814,527.93

The deficit of 1905–06 in the combined accounts of the University, College, Scientific School, Graduate School of Arts and Sciences, and Library was $59,296.31, the largest ever experienced. Deficits in these combined accounts were charged to the Stock account (so-called), until that resource was exhausted. They were then charged to the Insurance and Guaranty Fund. The deficit of 1905–06 exhausted that fund and left unprovided for a balance of deficit amounting to $27,291.25. After much consideration the Corporation voted (Dec. 17, 1906) to charge this balance to the Henry L. Pierce Fund, a fund which is unrestricted as to both principal and income.

The Corporation have now used up quick capital amounting to $488,841.69 by this process of charging annual deficits to unrestricted funds, as follows: —

Stock account	$239,813.55	(maximum in 1839)
Insurance and Guaranty Fund	221,736.89	(maximum in 1877)
Henry L. Pierce Fund	27,291.25	(part of)
Total	$488,841.69	

In the President's Report for 1902–03 the history of the two unrestricted funds which have now disappeared was given, and it was demonstrated that the Corporation had obtained between 1827 and 1903, out of unrestricted income and the unrestricted capital in the Stock account and the Insurance and Guaranty Fund, improvements in grounds, buildings, and equipment amounting to more than $420,000. (See Mr. Danforth's table, p. 324, in the Report for 1902–03. A few items in the table are to be deducted because they did not represent permanent improvements.) Since 1903, permanent improvements have been paid for out of unrestricted money which much more than account for the difference between $488,842 and $420,000.

It seems strange that, with such a remarkable inflowing of gifts for several years past, it should be necessary to discuss the means of overcoming a large annual deficit in the departments under the charge of the Faculty of Arts and Sciences. The explanation is simple. Of the eight millions of gifts in four years —above reported — two millions went to increase the scale of salaries for teachers in that Faculty. By the end of the current year less than $5000 of the income of the Teachers' Endowment Fund will remain unused; but the higher scale of salaries remains, a new and heavy burden on the Treasury. On account of the comparative youth of the members of that Faculty, the routine increases of salary are numerous, and not all of these could properly be charged to the Teachers' Endowment Fund during the years 1905–06 and 1906–07. After the current year the Corporation must provide for all routine increases according to the new scale. Again, at least two millions of the gifts went into the new Medical School Buildings during the years 1902–06. These admirable buildings entail heavy, new annual charges. Further, out of the gifts of the four years $1,137,000 were additional endowments for the Medical School, without which it could not possibly live in its new buildings. Finally, of the balance of the four years' gifts — about $2,678,000 — all but a small fraction went to special objects designated by the givers, of which all were useful, but none tended to fill up or remove the annual deficit in the account of the University, College, Scientific School, Graduate School, and Library. Every annual list of gifts in the Treasurer's Statement illustrates this method of giving to the University. A multitude of good objects, large and small, are provided for; but the increasing cost of instruction, administration, and equipment is not often remembered. In the new endowment of the Medical School these primary necessities have been borne in mind.

The financial situation suggests two questions: (1) How are annual deficits to be dealt with hereafter? and (2) How is more free money to be obtained? It is, of course, extremely undesirable to use up unrestricted funds bearing a benefactor's name by charging annual deficits to them. That use of unrestricted funds, if habitual, would discourage the giving of such funds. The heavy expenditures on real estate improvements and on equipment within the past ten years were really compulsory, and many such expenditures are likely to be forced on the Corporation in the future by the rising scale of comfort and efficiency in the community at large. At any rate, it is often bad economy to restrict closely or postpone such expenditures, heavy though they be. Moreover, these expenditures are incontrollably irregular.

EXPENDITURES FOR COLLEGE PUBLIC BUILDINGS, NOT VALUED ON THE TREASURER'S BOOKS, THE EXPENSES OF WHICH ARE NOT SEPARATELY ENTERED IN TABLE II OF THE TREASURER'S STATEMENT.

In 1902–03.	In 1903–04.	In 1904–05.	In 1905–06.
$42,023.61	$34,564.95	$40,014.36	$34,719.37

EXPENDITURES FOR COLLEGE DORMITORIES NOT VALUED ON THE TREASURER'S BOOKS.

In 1902–03.	In 1903–04.	In 1904–05.	In 1905–06.
$26,748.92	$30,191.52	$48,639.79	$38,927.74

If the only answer to the first question is — do not incur deficits, it will be necessary to reduce the number of salaried positions in the College. This process has already begun. When Professor Paine resigned, and Professors Peirce and Shaler died, their places were not filled. If the second question could be answered, the first would be. The only free money the Corporation has is the unrestricted funds and the tuition-fees. It is the custom to use tuition-fees for that department only in which they are earned; so that the fees are not completely free money. The existing unrestricted funds are inadequate to bear even the charges of broadest interest, such as the salaries of the President, Treasurer, Comptroller, and Bursar, and the expenses of the Corporation and Board of Overseers. The only way to increase the amount of such funds is to emphasize the urgent need of them, and then to treat them with such steady consideration that they will have either an assured permanence as funds or permanent visible representations, like named buildings, book-plates, and learned publications.

The attention of the Overseers and the Alumni is respectfully invited to the following Reports of the Deans of the Faculties and Schools, and the Directors of the Scientific Establishments. They contain much significant educational matter which cannot even be alluded to in the President's own Report.

CHARLES W. ELIOT, *President.*

CAMBRIDGE, January 9, 1907.

REPORTS OF DEPARTMENTS.

THE FACULTY OF ARTS AND SCIENCES.

To the President of the University: —

Sir, — I have the honor of presenting a report on the work of the Faculty of Arts and Sciences for the academic year 1905–06.

Besides the President, the Faculty contained seventy Professors, two Associate Professors, fifty-three Assistant Professors, one Lecturer, twenty-two Instructors, the Assistant Dean of Harvard College, and the Recorder, — in all one hundred and fifty members.

Instruction in 1905–06.

With the following list of courses of instruction that were actually given under the authority of the Faculty, I print a statement of the number and the classification of the students in each course. The figures are those officially returned to the Recorder by the several instructors at the close of the academic year, and take no account of persons who, regularly or irregularly, attended the exercises and did the work of a course without being officially recognized as members of it. The abbreviations are those ordinarily used in such lists :—

COURSES OF INSTRUCTION GIVEN IN 1905–06.

Semitic Languages and History.

For Undergraduates and Graduates : —

1. Professor Lyon. — Hebrew (elementary course). Explanation of parts of Genesis and of the Book of Psalms. 2 Se., 4 Ju., 2 So., 1 Di. Total 9.

6 *hf.* Professor Lyon. — History of Babylonia and Assyria. 1 Se., 1 Ju., 2 Di. Total 4.

12. Professor Lyon. — History of Israel, political and social, till the capture of Jerusalem by the Romans. 1 Gr., 4 Se., 10 Ju., 9 So., 1 Fr., 1 Sp., 1 Sc. Total 27.

16. Professor G. F. Moore. — History of Jewish Literature from the Earliest Times to 200 A.D. 1 Se., 1 R., 4 Di. Total 6.

18. Professor Toy. — History of the Hebrew Religion, with comparison of other Semitic Religions. 1 So., 1 Sp., 3 Di. Total 5.

14 *hf*. Professor Toy. — History of the Spanish Califate. The Barbary States; Moslems in Sicily; Lectures on the Literature; The Korān.
2 Se., 6 Ju., 2 Di. Total 10.

Primarily for Graduates: —

2. Professor Toy. — Hebrew (second course). Interpretation of parts of the Prophets and the Poetical Books.
1 Gr., 2 Se., 3 So., 2 Sp., 1 Di. Total 9.

‡3 ^{2}*hf*. Dr. Haynes. — Jewish Aramaic. Interpretation of parts of Ezra, Daniel, and the Targums. 1 So., 1 Sp., 1 Di. Total 3.

‡3*a* ^{1}*hf*. Dr. Haynes. — Classical Aramaic (Syriac). The Peshitto Version of the New Testament. 1 Gr., 1 So., 1 Di. Total 3.

3*b*. Dr. Haynes. — Classical Aramaic (advanced course). 1 Di. Total 1.

‡5. Professor Lyon. — Assyrian (second course). — The Laws of Hammurabi; Contracts from the time of the Hammurabi Dynasty. 1 So. Total 1.

‡7. Dr. Haynes. — Arabic. Brünnow's Chrestomathy. 2 Se., 1 Di. Total 3.

‡8. Professor Toy. — Arabic (second course). The Moallakāt; Motenebbi; Ibn Ḫaldun; the Korān. 1 Sp., 2 Di. Total 3.

‡20*b*. Professor Toy. — Semitic Verb-Forms. 3 Di. Total 3.

Indic Philology.

For Undergraduates and Graduates: —

1*a* ^{1}*hf*. Professor Lanman. — Elementary Sanskrit. 1 Gr., 1 Se., 1 Ju. Total 3.

1*b* ^{2}*hf*. Professor Lanman. — Elementary Sanskrit (continued). Episodes from the Mahā-Bhārata. 1 Gr., 1 Se. Total 2.

Primarily for Graduates: —

‡2 ^{1}*hf*. Professor Lanman. — Vedic Sanskrit. Introduction to the language and literature of the Vedas. Hymns of the Artharva-Veda, the Rig-Veda, etc.
2 Gr. Total 2.

‡3 ^{2}*hf*. Professor Lanman. — Vedic Sanskrit. Continuation of the study of the Vedas. 2 Gr., 1 Instr. Total 3.

The Classics.

Primarily for Undergraduates: —

GREEK.

G. Dr. C. N. Jackson. — Course for Beginners.
1 Se., 2 Ju., 2 So., 3 Fr. Total 8.

B. Professor J. H. Wright, and Asst. Professors Gulick and Harris. — Greek Literature. Plato; Lysias; Xenophon; Elegiac, Iambic, and Lyric Poets; Euripides. Lectures on the History of Greek Literature.
1 Ju., 5 So., 48 Fr., 2 Sp. Total 56.

E hf. Asst. Professor Harris. — Greek Prose Composition (first course).
4 So., 9 Fr. Total 13.

1. Asst. Professor Harris. — Greek Literature. The Period of Athenian Supremacy. Herodotus; Aeschylus; Plutarch; Thucydides; Aristophanes; Sophocles. 3 Se., 2 Ju., 9 So., 2 Fr. Total 16.

2. Asst. Professor **Gulick**. — Greek Literature. Aristophanes; Thucydides; Aeschylus; Sophocles. 2 Se., 1 Ju., 13 So. Total 16.

3 *hf*. Asst. Professor **Gulick**. — Greek Prose Composition (second course). 6 Gr., 1 Ju., 9 So. Total 16.

Latin.

B. Professor **Howard**, Associate Professor C. P. **Parker**, Asst. Professor E. K. **Rand**, and Dr. **Walden**. — Latin Literature. Livy; Horace; Terence. 2 Ju., 17 So., 104 Fr., 2 Sp. Total 125.

E hf. Dr. **Walden**. — Latin Composition (first course). Translation of English narrative. 1 Se., 3 So., 12 Fr. Total 16.

1. Professor **Minton Warren** and Associate Professor C. P. **Parker**. — Latin Literature. Tacitus; Horace; Catullus. 1 Se., 2 Ju., 21 So. Total 24.

2. Asst. Professor E. K. **Rand** and Dr. **Walden**. — Latin Literature. General View of Latin Poetry; Tacitus. 1 Gr., 1 Se., 5 Ju., 11 So., 1 Fr. Total 19.

3 *hf*. Asst. Professor E. K. **Rand**. — Latin Composition (second course). 5 Gr., 3 Ju., 9 So. Total 17.

For Undergraduates and Graduates: —

Greek.

6. Professor **Weir Smyth**. — Greek Literature. Demosthenes; Aeschines; Aeschylus; Sophocles; Aristophanes. 2 Gr., 1 Se., 10 Ju., 4 So. Total 17.

7 *hf*. Professor J. H. **Wright**. — Greek Prose Composition (third course). 4 Gr., 2 Se., 4 Ju. Total 10.

9. Professor **Ropes**. — Introduction to the Study of the New Testament. The Origin and History of the New Testament Writings; the Teaching of Jesus Christ and of the New Testament Authors. 1 Gr., 3 Se., 1 Ju., 10 Di. Total 15.

8. Professors **Goodwin** and J. H. **Wright**. — Plato; Aristotle. Survey of Greek Philosophy from Thales to Aristotle. 9 Gr., 2 Se. Total 11.

16 ¹*hf*. Asst. Professor **Harris**. — Greek Literature. The Iliad of Homer, with studies of its influence to the time of the Renaissance. 4 Gr., 4 Se., 7 Ju., 1 So. Total 16.

12. Professor **Weir Smyth**. — History of Classical Greek Literature. 12 Gr., 1 Ju. Total 13.

Latin.

6. Professor **Howard**. — Latin Literature. Suetonius; Pliny; Juvenal; Martial. 2 Gr., 12 Ju., 3 So. Total 17.

7 *hf*. Associate Professor C. P. **Parker**. — Latin Composition (third course). 6 Gr., 2 Se., 5 Ju. Total 13.

8. Professor **Minton Warren** and Associate Professor C. P. **Parker**. — Latin Literature. Cicero; Lucretius; Plautus. 8 Gr., 3 Se., 7 Ju. Total 18.

10. Professor Morgan. — The Private Life of the Romans.
2 Gr., 26 Se., 44 Ju., 36 So., 1 Sp., 6 Sc. Total 115.

Primarily for Graduates: —

Classical Philology.

‡25 ^{2}*hf.* Professor Morgan. — History of Classical Studies and Introduction to Interpretation and Criticism. 11 Gr., 3 R. Total 14.

28 ^{2}*hf.* Professor Weir Smyth. — Aeschylus (Agamemnon, Choephoroe, Eumenides). 8 Gr., 1 Se., 2 Ju. Total 11.

71 ^{2}*hf.* Professor J. W. White. — The Old Greek Comedy. Reading of the Fragments, with studies in Biography and Literary History.
2 Gr. Total 2.

78. Professor J. W. White. — The Birds of Aristophanes. Critical and Literary Study of the Play. 3 Gr. Total 3.

‡80 ^{1}*hf.* Asst. Professor Gulick. — Herodotus. 5 Gr., 1 Se., 1 R. Total 7.

‡27 ^{1}*hf.* Professor Goodwin. — The Politics of Aristotle.
2 Gr., 1 Se., 2 R. Total 5.

‡60. Professor Ropes. — The Gospels of Matthew, Mark, and Luke.
1 Gr., 1 Ju., 2 Di., 1 R. Total 5.

‡81 ^{2}*hf.* Professor Ropes. — The Epistles of James, Peter, and Jude.
1 Di. Total 1.

45 ^{1}*hf.* Professor Morgan. — The early career of Cicero, from its outset to the end of the prosecution of Verres. 8 Gr., 1 Se., 1 Ju. Total 10.

46. Professor Howard. — The Second Punic War. Livy. 7 Gr. Total 7.

79 ^{2}*hf.* Asst. Professor E. K. Rand. — The Works of Ovid, with studies of his Sources and of his Literary Influence from his own times to the Renaissance. 4 Gr., 1 Se., 2 Ju., 1 So. Total 8.

84 ^{2}*hf.* Asst. Professor Gulick. — Greek Grammar (Sounds and Inflections). Study of Dialectic Inscriptions. 13 Gr. Total 13.

‡62 ^{1}*hf.* Professor Weir Smyth. — Greek Grammar (Syntax).
7 Gr., 1 R. Total 8.

‡22 ^{1}*hf.* Professor Minton Warren. — Latin Grammar (Sounds and Inflections).
12 Gr., 1 Se., 2 R. Total 15.

‡63 ^{2}*hf.* Professor Minton Warren. — Introduction to Latin Epigraphy.
10 Gr., 3 R. Total 13.

58 ^{2}*hf.* Professor Howard. — Introduction to Latin Palaeography.
3 Gr. Total 3.

64. Dr. Chase. — General Introduction to Classical Archaeology.
4 Gr., 1 Se., 1 Ju., 1 Sc. Total 7.

20. The Seminary of Classical Philology.

Professors Minton Warren and Morgan, Directors for 1905–06. — Training in philological criticism and research. Text-criticism and interpretation of Greek and Latin authors: for 1905–06, Antiphon and Terence.
7 Gr. Total 7.

Comparative Philology.

2a *hf.* Professor GRANDGENT. — General Introduction to Linguistic Science. Phonetics. The Pronunciation of English, French, German, and Latin. 8 Gr., 1 Se., 2 So. Total 11.

English.

ENGLISH COMPOSITION.

Primarily for Undergraduates: —

A. Professor BRIGGS, Asst. Professor HURLBUT, Drs. H. DE W. FULLER, GREENOUGH, LOW, STOLL, and WEBSTER, Messrs. BAKER, W. R. CASTLE, HERSEY, KENYON, MURRAY, NUTTER, POST, and STEARNS. — Rhetoric and English Composition. 1 Ju., 2 So., 334 Fr., 41 Sp., 119 Sc., 7 Bu. Total 504.

BC *hf.* Mr. T. HALL. — English Composition. 1 So., 58 Sc. Total 59.

22. Dr. MAYNADIER, and Mr. MURRAY and Dr. LAW. — English Composition. 2 Gr., 9 Se., 26 Ju., 34 So., 8 Fr., 6 Sp., 3 Sc. Total 88.

31$^{1\text{ or }2}$*hf.* Asst. Professor GARDINER and Dr. WEBSTER. — English Composition. 1 Se., 6 Ju., 84 So., 66 Fr., 14 Sp., 3 Sc., 1 Bu. Total 175.

18. Professor BAKER, and Messrs. WELLDON and CURTIS. — The Forms of Public Address. 1 Gr., 10 Se., 35 Ju., 23 So., 4 Sp., 1 Sc. Total 74.

30$^{1\text{ or }2}$*hf.* Professor BAKER and Mr. CURTIS. — Debating. 4 Gr., 3 Se., 12 Ju., 2 So., 1 Sp. Total 22.

For Undergraduates and Graduates: —

12. Mr. COPELAND. — English Composition. 6 Gr., 4 Se., 10 Ju., 6 So., 2 Sp. Total 28.

Primarily for Graduates: —

5. Professor BRIGGS. — English Composition (advanced course). 11 Gr., 4 Se., 5 Ju., 3 So., 3 Sp., 1 Sc., 1 Di. Total 28.

47^{2}*hf.* Professor BAKER. — English Composition. The Technique of the Drama. 5 Gr., 3 Ju., 2 So. Total 10.

ENGLISH LITERATURE.

Primarily for Undergraduates: —

28 *hf.* Professors BRIGGS, WENDELL, KITTREDGE, and BAKER, and Mr. T. HALL. — English Literature. History and Development of English Literature in outline. 1 So., 95 Fr., 8 Sp. Total 104.

For Undergraduates and Graduates: —

3a^{1}*hf.* Dr. WEBSTER. — Anglo-Saxon. 21 Gr., 3 Se., 6 Ju., 1 So. Total 31.

1. Asst. Professor SCHOFIELD and Dr. WEBSTER. — English Literature. Chaucer. 17 Gr., 3 Se., 4 Ju., 2 So. Total 26.

35. Asst. Professor GARDINER. — English Literature. The English Bible. 3 Gr., 3 Se., 12 Ju., 11 So., 2 Sp. Total 31.

2. Professor KITTREDGE. — English Literature. Shakspere (six plays). 21 Gr., 11 Se., 23 Ju., 43 So., 1 Fr., 10 Sp., 3 Sc. Total 112.

11*a* ^{1}*hf.* Dr. H. de W. Fuller.—English Literature. Bacon.
3 Gr., 4 Se., 6 Ju., 11 So., 1 Fr., 3 Sc., 1 Bu. Total 29.

11*b* ^{2}*hf.* Asst. Professor F. N. Robinson. — English Literature. Milton.
11 Gr., 7 Se., 10 Ju., 24 So., 4 Fr., 4 Sp., 1 Sc. Total 61.

42*a* ^{1}*hf.* Asst. Professor Schofield. — The Literary History of England from the Norman Conquest to Chaucer.
9 Gr., 6 Se., 9 Ju., 13 So., 4 Fr., 5 Sp., 1 Sc. Total 47.

42*b* ^{2}*hf.* Asst. Professor Schofield. — The Literary History of England from Chaucer to Elizabeth.
9 Gr., 12 Se., 27 Ju., 38 So., 10 Fr., 5 Sp., 1 Sc. Total 102.

32*b* ^{1}*hf.* Dr. H. de W. Fuller. — English Literature. From the death of Spenser to the Closing of the Theatres (1599–1642).
5 Gr., 13 Se., 10 Ju., 21 So., 1 Sc. Total 50.

15 ^{2}*hf.* Dr. Greenough. — English Literature. From the Closing of the Theatres to the death of Dryden (1642–1700).
12 Gr., 15 Se., 25 Ju., 58 So., 12 Fr., 3 Sp., 4 Sc. Total 129.

8*a* ^{1}*hf.* Mr. Copeland. — English Literature. From the publication of the Lyrical Ballads to the death of Scott (1798–1832).
5 Gr., 29 Se., 41 Ju., 60 So., 13 Fr., 8 Sp., 4 Sc. Total 160.

8*b* ^{2}*hf.* Dr. Maynadier. — English Literature. From the death of Scott to the death of Tennyson (1832–1892).
7 Gr., 14 Se., 38 Ju., 45 So., 7 Fr., 7 Sp., 9 Sc. Total 127.

46. Professor Wendell. — English Literature. The Literary Origins of English Literature. 8 Gr., 6 Se., 15 Ju., 15 So., 1 Fr., 3 Sp., 1 Sc. Total 49.

29 *hf.* Dr. Maynadier. — English Literature. The Novel from Pamela to Daniel Deronda. 5 Gr., 2 Se., 3 Ju., 3 So. Total 13.

33 ^{1}*hf.* Professor Wendell. — English Literature. The Literary History of America. 15 Gr., 36 Se., 42 Ju., 26 So., 4 Fr., 6 Sp., 2 Sc. Total 131.

Primarily for Graduates: —

16 *hf.* Professor Briggs. — History and Principles of English Versification.
3 Gr., 1 So., 1 Fr., 1 Sp. Total 6.

3*b* ^{2}*hf.* Professor Kittredge and Asst. Professor F. N. Robinson. — Anglo-Saxon. Bёowulf. 17 Gr., 1 Se., 2 Ju. Total 20.

25 ^{1}*hf.* Asst. Professor F. N. Robinson. — Anglo-Saxon. Cædmon. Cynewulf.
5 Gr. Total 5.

27 ^{1}*hf.* Professor Kittredge. — The English and Scottish Popular Ballads.
7 Gr. Total 7.

44 ^{2}*hf.* Professor Kittredge. — Chaucer. Study of special topics.
7 Gr. Total 7.

14. Professor Baker. — English Literature. The Drama from the Miracle Plays to the Closing of the Theatres.
25 Gr., 1 Se., 5 Ju., 3 So., 1 Sp. Total 35.

COURSES OF SPECIAL STUDY.

20. The instructors in English held themselves ready to assist and advise competent Graduate Students who might propose plans of special study in the topics mentioned below. Such plans, however, must in each case have met the approval of the Department.

TOPICS.

g. Professor BAKER. — The English Drama: its history, and its relation to Continental Drama. 1 Gr. Total 1.

h. Professor WENDELL. — The Literary History of America. 2 Gr. Total 2.

Public Speaking.

Primarily for Undergraduates: —

1. Mr. DEMING. — Voice Cultivation. 2 Gr., 3 Se., 5 Ju., 15 So., 20 Fr., 6 Sp., 3 Sc., 3 Bu. Total 57.

2 *hf.* Messrs. WILLARD and HILLS. — Platform Speaking. 3 Se., 25 Ju., 38 So., 7 Fr., 2 Sp., 1 Sc. Total 76.

3 *hf.* Mr. HILLS. — Masterpieces of Public Discourse. 2 Gr., 1 Se., 5 Ju., 19 So., 1 Fr. Total 28.

4 *hf.* Mr. HILLS. — Dramatic Interpretation. 1 Se., 1 Ju., 2 So., 2 Sp., 1 Law. Total 7.

Germanic Languages and Literatures.

GERMAN.

Primarily for Undergraduates: —

A. Asst. Professor BIERWIRTH, Dr. STURTEVANT, and Messrs. GROSSMANN, WEBER, COLWELL, BRIGGS, and HERRICK. — Elementary Course. 2 Gr., 6 Se., 4 Ju., 23 So., 183 Fr., 9 Sp., 12 Sc., 3 Bu., 1 Di. Total 243.

D. Asst. Professor BIERWIRTH and Messrs. BRIGGS and LIEDER. — Elementary Course. 1 Gr., 1 Fr., 43 Sc. Total 45.

B. Mr. W. G. HOWARD. — Elementary Course (counting as two courses). 4 So., 14 Fr., 4 Sp. Total 22.

C. Dr. STURTEVANT and Mr. WEBER. — German Prose and Poetry. 1 Ju., 5 So., 27 Fr., 8 Sp., 3 Sc. Total 44.

1*a.* Messrs. MUENTER and WEBER. — German Prose and Poetry. 1 Se., 7 Ju., 41 So., 8 Fr., 2 Sp., 1 Sc. Total 60.

1*b.* Professor H. S. WHITE and Mr. LIEDER. — German Prose. Subjects in History and Biography. 1 Gr., 4 Ju., 38 So., 13 Fr., 2 Sp., 8 Sc. Total 66.

1*c.* Mr. COLWELL. — German Prose, narrative and descriptive. 2 Gr., 5 So., 2 Fr., 22 Sc. Total 31.

Fhf. Mr. MUENTER. — Practice in speaking and writing German (first course). 6 Ju., 3 So., 2 Fr., 1 Sc., 1 Bu. Total 13.

2*a*. Messrs. Weber and Muenter. — Introduction to German Literature of the Eighteenth and Nineteenth Centuries. Lessing, Goethe, and Schiller; German Ballads and Lyrics. 6 Ju., 21 So., 41 Fr., 1 Sp. Total 69.

2*b*. Professor H. S. White, Dr. Sturtevant, and Mr. Grossmann. — Introduction to German Literature of the Eighteenth and Nineteenth Centuries. Lessing, Goethe, and Schiller; German Ballads and Lyrics.
1 Gr., 3 Se., 26 Ju., 20 So., 22 Fr., 8 Sp., 5 Sc. Total 85.

3. Asst. Professor Bierwirth. — Schiller and his Time. Der Dreissigjährige Krieg; Wallenstein; Maria Stuart; Die Jungfrau von Orleans; Die Braut von Messina; Gedichte. 1 Se., 3 Ju., 8 So., 8 Fr., 2 Sp., 1 Sc. Total 23.

4. Asst. Professor Walz. — Goethe and his Time. Götz von Berlichingen; Egmont; Iphigenie; Tasso; Dichtung und Wahrheit; Gedichte; Faust.
8 Se., 25 Ju., 33 So., 6 Fr., 1 Sc. Total 73.

For Undergraduates and Graduates: —

6 *hf*. Asst. Professor Bierwirth. — German Grammar and practice in writing German (advanced course). 2 Gr., 1 Ju., 1 So. Total 4.

5. Professor Francke and Dr. Wernaer. — German Literature of the Classic Period of the Eighteenth Century. 2 Gr., 3 Se., 10 Ju., 4 So. Total 19.

26*a* ^{1}*hf*. Mr. W. G. Howard. — German Literature in the first half of the Nineteenth Century. Kleist; Uhland; Heine.
1 Gr., 2 Se., 2 Ju., 2 So. Total 7.

26*b* ^{2}*hf*. Mr. W. G. Howard. — German Literature in the second half of the Nineteenth Century. The Development of the Novel and the Drama.
1 Gr., 1 Se., 3 Ju., 7 So., 1 Fr. Total 13.

30. Professor H. S. White. — Lessing's Life and Works. Selections from Lessing's dramatic and critical writings and from his correspondence, with some examination of his views on literary, artistic, and religious questions.
1 Gr., 1 Se., 3 Ju., 3 So., 1 Fr., 1 Sc. Total 10.

8. Asst. Professor Walz. — German Literature in the Twelfth and Thirteenth Centuries. Nibelungenlied; Kudrun; Hartmann; Wolfram; Walther von der Vogelweide. Translation into modern German.
5 Gr., 4 Se., 3 Ju., 2 So., 2 Sp. Total 16.

Primarily for Graduates: —

‡9*a hf*. Professor Francke. — German Religious Sculpture from the Eleventh to the End of the Thirteenth Century, and its relation to homiletic and legendary literature, with interpretations in the Germanic Museum.
4 Gr., 1 R. Total 5.

‡10 ^{1}*hf*. Mr. W. G. Howard. — German Literature in the Sixteenth Century. Humanism and Reformation. Hutten, Luther, Hans Sachs, Fischart. Popular Literature in prose and verse. The Drama.
2 Gr., 3 R. Total 5.

‡13 ^{2}*hf*. Mr. W. G. Howard. — The Dramatic Works of Friedrich Hebbel.
1 Gr., 1 Se. Total 2.

‡12*a* ^{1}*hf*. Dr. Goebel. — Gothic. Introduction to the study of Germanic Philology. General Introduction; Phonology. 11 Gr., 2 R. Total 13.

‡12*b* ^{2}*hf*. Dr. Goebel. — Introduction to the study of Germanic Philology (continued). Morphology; Etymology. 6 Gr., 1 R. Total 7.

‡14 ^{1}*hf*. Asst. Professor Bierwirth. — Old Saxon. Introduction to Germanic Metrics. 3 Gr. Total 3.

‡15 ^{2}*hf*. Asst. Professor Walz. — Old High German. 6 Gr., 1 R. Total 7.

‡21. Dr. Goebel. — History of the German Language, with special study of selected topics. 4 Gr. Total 4.

24 ^{2}*hf*. Dr. Goebel. — Des Minnesangs Frühling. 7 Gr., 1 Ju. Total 8.

SEMINARY COURSES.

Primarily for Graduates: —

‡20*a*. Professor Francke. — The Mediaeval German Religious Drama. 1 Gr., 1 R. Total 2.

‡20*b* ^{1}*hf*. Asst. Professor Walz. — Klopstock. 6 Gr. Total 6.

NETHERLANDISH.

For Undergraduates and Graduates: —

1*a* ^{1}*hf*. Dr. H. de W. Fuller. — Dutch grammar. 4 Gr., 2 Ju., 1 So. Total 7.

1*b* ^{2}*hf*. Dr. H. de W. Fuller. — Netherlandish literature. 5 Gr., 1 Ju., 1 So. Total 7.

SCANDINAVIAN.

Primarily for Graduates: —

2. Asst. Professor Schofield. — Icelandic (Old Norse). — Selections from the Sagas and the Elder Edda. 12 Gr. Total 12.

Romance Languages and Literatures.

FRENCH.

Primarily for Undergraduates: —

A. Mr. Whittem, assisted by Messrs. Baulig, Michell, and Dey. — Elementary Course. 3 Gr., 6 Se., 11 So., 55 Fr., 15 Sp., 29 Sc. Total 119.

1*c*. Messrs. Bush and Gill. — Reading, translation, grammar, and composition. 1 Se., 1 Ju., 10 So., 1 Fr., 1 Sp., 27 Sc. Total 41.

1*b*. Asst. Professor Babbitt, Dr. M. A. Potter, and Messrs. Hawkins and Spiers. — French Prose, historical and general. Translation from French into English. 1 Gr., 7 Ju., 24 So., 44 Fr., 10 Sp., 10 Sc. Total 96.

1*a*. Associate Professor de Sumichrast and Mr. Brun. — Reading, translation, grammar, and composition. 2 Ju., 21 So., 18 Fr., 5 Sp. Total 46.

2*c*. Asst. Professor Ford, Dr. M. A. Potter, Messrs. Lincoln, Hawkins, Baulig, Michell, and Whittem. — French Prose and Poetry. Molière; Beaumarchais; Lamartine; Victor Hugo; Alfred de Musset; Balzac; Rostand. Composition. 4 Se., 16 Ju., 38 So., 98 Fr., 7 Sp., 2 Sc. Total 165.

2a. Asst. Professor C. H. C. Wright, and Messrs. Brun and Spiers. — French Prose and Poetry. Corneille; Racine; Molière; Victor Hugo; George Sand; Alfred de Musset; Sainte-Beuve; Rostand. Composition.
2 Se., 11 Ju., 26 So., 59 Fr., 2 Sp., 4 Sc. Total 104.

4 ^{1}*hf.* Mr. Brun. — French Composition (intermediate course).
4 Se., 7 Ju., 11 So., 7 Fr., 4 Sc. Total 33.

5 ^{2}*hf.* Mr. Brun. — French Composition (advanced course).
3 Se., 6 Ju., 5 So., 1 Fr. Total 15.

For Undergraduates and Graduates : —

6c. Professor Grandgent and Asst. Professor Babbitt. — General view of French Literature. 3 Gr., 1 Se., 8 Ju., 16 So. Total 28.

6. Associate Professor de Sumichrast. — General view of French Literature.
3 Se., 16 Ju., 25 So., 4 Fr. Total 48.

13. Asst. Professor C. H. C. Wright. — The Rise and Growth of Classicism in French Literature. 4 Gr., 1 Se., 1 Ju., 1 So. Total 7.

8. Associate Professor de Sumichrast. — French Literature in the Eighteenth Century. 4 Gr., 5 Se., 11 Ju., 8 So. Total 28.

9. Asst. Professor C. H. C. Wright. — French Literature in the Seventeenth Century. 1 Gr., 6 Se., 4 Ju., 3 So. Total 14.

ITALIAN.

Primarily for Undergraduates : —

1. Asst. Professor Ford, and Messrs. Bush and Michell. — Elementary Course. 1 Se., 18 Ju., 15 So., 11 Fr., 1 Sp., 2 Sc. Total 48.

For Undergraduates and Graduates : —

5. Mr. Michell. — Modern Italian Literature. Prose and Poetry of the Eighteenth and Nineteenth Centuries.
3 Gr., 3 Se., 1 Ju., 1 So., 1 Fr., 1 Sp. Total 10.

2. Asst. Professor Ford. — Italian Literature of the Fifteenth and Sixteenth Centuries. Torquato Tasso, Ariosto, Machiavelli, Benvenuto Cellini.
4 Gr., 1 Se., 8 Ju., 1 So., 1 Sp. Total 15.

10. Professor Grandgent. — The Works of Dante, particularly the Vita Nuova and the Divine Comedy. 5 Gr., 5 Se., 3 Ju., 1 So. Total 14.

Primarily for Graduates : —

3. Professor Grandgent and Asst. Professor Ford. — Italian Literature of the Thirteenth and Fourteenth Centuries. Selections from Boccaccio, Petrarca, and Dante. Early Italian. Monaci's Crestomazia italiana dei primi secoli. 11 Gr., 1 Ju., 1 So. Total 13.

SPANISH.

Primarily for Undergraduates : —

1. Dr. M. A. Potter, Messrs. Lincoln, Gill, Whittem, and Dey. — Elementary Course. 1 Gr., 16 Ju., 30 So., 24 Fr., 1 Sp., 9 Sc. Total 81.

For Undergraduates and Graduates : —

4 *hf.* Asst. Professor Ford. — A general view of Spanish Literature.
6 Gr., 5 Se., 5 Ju., 1 So. Total 17.

5. Asst. Professor FORD. — Spanish Prose and Poetry of the Eighteenth and Nineteenth Centuries.
5 Gr., 5 Se., 14 Jr., 7 So., 2 Fr., 1 Sp., 2 Sc. Total 36.

ROMANCE PHILOLOGY.

Primarily for Graduates: —

3. Professor SHELDON. — Old French. Phonology and inflections. The oldest texts. La Chanson de Roland; Chrétien de Troyes; Aucassin et Nicolette. 20 Gr., 1 Se. Total 21.

7. Professor SHELDON. — Anglo-French and the French Element in English.
2 Gr., 1 R. Total 3.

COURSE OF SPECIAL STUDY.

‡20. Professor SHELDON. — Opportunities were afforded to competent students for the investigation of special subjects in Romance Philology.
1 Gr., 1 R. Total 2.

Comparative Literature.

For Undergraduates and Graduates: —

2. Professor SHELDON. — Mediaeval Literature in the vulgar tongues, with especial reference to the influence of France and Provence.
4 Gr. Total 4.

3. Dr. M. A. POTTER. — Tendencies of European Literature in the Renaissance.
5 Gr., 1 Se. Total 6.

15. Asst. Professor BABBITT. — Rousseau and his Influence.
4 Gr., 1 Ju. Total 5.

COURSES OF SPECIAL STUDY.

Primarily for Graduates: —

20. Professor SHELDON. — Opportunities were afforded to competent Graduate Students, under the guidance of instructors, for original investigation in special topics. 1 Gr. Total 1.

20*a*. Asst. Professor FORD. — The Relations between Spanish Literature and the Literature of other European Countries. 1 Gr., 1 Se., 1 Ju. Total 3.

Celtic.

Primarily for Graduates: —

1 ^{1}*hf.* Asst. Professor F. N. ROBINSON. — Old Irish. General introduction to Celtic Philology. 1 Gr., 1 Law. Total 2.

3 *hf.* Asst. Professor F. N. ROBINSON. — Old and Middle Welsh. The Mabinogion and other selections from the Red Book of Hergest.
2 Gr., 1 Ju., 1 Law. Total 4.

Slavic Languages.

For Undergraduates and Graduates: —

1*a*. Asst. Professor WIENER. — Russian. 2 So., 1 Law. Total 3.

1*b*. Asst. Professor WIENER. — Russian. Literature of the Nineteenth Century. Pushkin, Gogol, Turgenev, Tolstoy. Composition. 1 Se. Total 1.

2*a*. Asst. Professor WIENER. — Polish. 1 Se. Total 1.

4 *hf.* Asst. Professor WIENER. — Introduction to the History of Russian Literature. 8 Se., 5 Ju., 47 So., 2 Fr., 1 Sp. Total 63.

History and Political Science.

HISTORY.

Primarily for Undergraduates: —

1*a*. Professor **Haskins**, assisted by Messrs. **Gray**, **Ogg**, **Read**, and **McKendrick**. — Mediaeval History (introductory course).
4 Ju., 36 So., 246 Fr., 40 Sp., 5 Sc. Total 331.

27. Dr. **Merriman**. — European History in the Sixteenth and Seventeenth Centuries: principally of France, Germany, and the Netherlands.
2 Se., 2 Ju., 38 So., 5 Fr., 4 Sp. Total 51.

For Undergraduates and Graduates: —

2. Professor J. H. **Wright**. — History of Greece to the Roman Conquest.
4 Gr., 2 Se., 9 Ju., 12 So., 2 Sp. Total 29.

7. Professor **Emerton**. — The Era of the Reformation in Europe from the rise of Italian Humanism to the close of the Council of Trent (1350–1563).
10 Gr., 1 Se., 3 Ju., 3 So., 3 Di. Total 20.

8. Professor **Gross**. — History of France to the Reign of Francis I.
6 Gr., 1 Se., 5 Ju., 15 So., 1 Fr. Total 28.

9. Professor **Gross**. — Constitutional History of England to the Sixteenth Century. 13 Gr., 3 Se., 6 Ju., 12 So., 1 Sp. Total 35.

11. Dr. **Merriman**. — History of England during the Tudor and Stuart Periods.
9 Gr., 8 Se., 22 Ju., 18 So. Total 57.

12*a* [1]*hf*. Professor **Macvane**, assisted by Mr. **Fryer**. — English History from the Revolution of 1688 to the Reform of Parliament.
13 Gr., 17 Se., 28 Ju., 41 So., 1 Fr., 2 Sp. Total 102.

12*b* [2]*hf*. Professor **Macvane**, assisted by Mr. **Fryer**. — English History since the Reform of Parliament.
9 Gr., 11 Se., 23 Ju., 45 So., 3 Sp., 1 Sc. Total 92.

16*a* [1]*hf*. Professor **Macvane**, assisted by Mr. **Blair**. — History of Continental Europe from the Peace of Utrecht to the Fall of Napoleon I.
7 Gr., 28 Se., 31 Ju., 61 So., 9 Fr., 4 Sp., 1 Sc. Total 141.

16*b* [2]*hf*. Professor **Macvane**, assisted by Mr. **Blair**. — History of Continental Europe since the Fall of Napoleon I.
8 Gr., 20 Se., 25 Ju., 63 So., 6 Fr., 3 Sp. Total 125.

31 [1]*hf*. Professor **Dennis** (University of Wisconsin). — European History in the Napoleonic Period. 1 Gr., 6 Se., 6 Ju., 7 So., 3 Sp. Total 23.

33 [1]*hf*. Professor **Dennis** (University of Wisconsin). — History of British India.
2 Se., 2 Ju., 2 So., 1 Sp. Total 7.

10. Professor **Channing**, assisted by Dr. R. G. **Usher**. — American History to 1783. 4 Gr., 2 Se., 19 Ju., 36 So., 1 Fr., 4 Sp., 1 Sc. Total 67.

13. Professor A. B. **Hart**, assisted by Messrs. **Bishop** and **Legg**. — Constitutional and Political History of the United States (1783–1865).
14 Gr., 8 Se., 53 Ju., 31 So., 1 Fr. Total 107.

Primarily for Graduates: —

‡21 ^{1}*hf.* Professor HASKINS. — Introduction to the Sources of Mediaeval History. 6 Gr., 1 Se., 2 R. Total 9.

22 ^{2}*hf.* Professor HASKINS. — The Elements of Latin Palaeography, with reference to the use of historical sources. 7 Gr., 1 Se. Total 8.

26. Professor EMERTON. — History of Christian Thought, considered in its relation to the prevailing philosophy of each period, from the earliest time to the Eighteenth Century. 1 Gr., 1 Se., 5 Di. Total 7.

‡24. Professor E. C. MOORE. — The Church since the Reformation. 2 Gr., 1 Se., 13 Ju., 18 So., 2 Sp., 1 Sc., 5 Di. Total 42.

23*a* ^{1}*hf.* Professor CHANNING. — Selected Topics in the historical development of American Institutions. Colonial History, 1660–1689. 6 Gr. Total 6.

23*b* ^{2}*hf.* Professor CHANNING. — Selected Topics in the historical development of American Institutions. Colonial History, 1689–1760. 7 Gr., 1 Ju. Total 8.

COURSES OF RESEARCH.

20*a*. Professor EMERTON. — Church and State. 1 Gr. Total 1.

20*b*. Professor GROSS. — English Institutions in the Middle Ages. 3 Gr. Total 3.

20*c*. Professor HASKINS. — Institutions of Continental Europe in the Middle Ages. 2 Gr. Total 2.

20*e*. Professors CHANNING and HART. — American History and Institutions. 7 Gr., 1 Sp. Total 8.

20*f*. Dr. MERRIMAN. — English Institutions in the Tudor and Stuart Periods. 1 Gr. Total 1.

20*h*. Mr. JOHNSTON. — History of France and Italy during the period of Napoleon and the Risorgimento. 1 Se. Total 1.

GOVERNMENT.

Primarily for Undergraduates: —

1. Professor LOWELL, assisted by Messrs. RICE, CATLETT, LUNT, and USHER. — Constitutional Government (elementary course). 1 Gr., 3 Ju., 111 So., 235 Fr., 29 Sp., 5 Sc. Total 384.

For Undergraduates and Graduates: —

4. Professor MACVANE, assisted by Mr. H. C. JONES. — Elements of International Law. 4 Gr., 14 Se., 16 Ju., 6 So., 2 Sp. Total 42.

5. Professor HASKINS. — The Roman Law: its History, Principles, and Influence on European Institutions. 5 Gr., 1 Se., 9 Ju., 8 So., 1 Sp. Total 24.

9 *hf.* Professor GROSS. — Origin and Development of Municipal Government in the Middle Ages. 2 Se., 4 Ju., 4 So., 1 Sp. Total 11.

11. Dr. MUNRO. — Colonial Governments. 5 Gr., 7 Se., 30 Ju., 31 So., 2 Sp. Total 75.

13 ^{2}*hf.* Mr. JOHNSTON. — European Diplomacy since 1814. 5 Gr., 1 Se., 10 Ju., 3 So. Total 19.

14. Professor A. B. Hart. — American Diplomacy. Treaties; application of International Law; Foreign Policy. 9 Gr., 3 Se., 3 Ju., 1 So. Total 16.

16. Professor Stimson, assisted by Dr. Fite. — Tendencies of American Legislation, with an historical view of prototypes in English legislation.
6 Gr., 5 Se., 50 Ju., 48 So., 2 Fr., 5 Sp. Total 116.

17. Dr. Munro, assisted by Mr. Neagle. — Modern Municipal Government.
7 Gr., 10 Se., 36 Ju., 20 So., 3 Sp. Total 76.

Primarily for Graduates: —

19. Professor Stimson. — American Constitutional Law: A study of constitutional principles and limitations throughout the United States.
5 Gr., 7 Se., 4 Ju., 1 So. Total 17.

21 ^{1}*hf.* Mr. E. M. Parker. — Comparative Administration. European and American Systems. 1 Gr., 1 Se. Total 2.

Economics.

Primarily for Undergraduates: —

1. Professor Taussig and Asst. Professor Andrew, assisted by Messrs. Howland, C. W. Wright, Martin, Price, Mason, and Daggett. — Principles of Economics.
1 Gr., 9 Se., 87 Ju., 266 So., 63 Fr., 22 Sp., 22 Sc. Total 470.

7 ^{2}*hf.* Asst. Professor Bullock. — Public Finance considered with special reference to the Theory and Methods of Taxation.
13 Se., 54 Ju., 55 So., 4 Fr., 8 Sp., 2 Sc., 1 Bu. Total 137.

For Undergraduates and Graduates: —

2. Professor Taussig. — Principles of Economics (second course).
13 Gr., 7 Se., 5 Ju., 8 So., 1 Sp. Total 34.

3. Professor Carver. — Principles of Sociology. Theories of Social Progress.
9 Gr., 11 Se., 23 Ju., 13 So., 2 Sp., 2 Di. Total 60.

5 ^{1}*hf.* Professor Ripley, assisted by Mr. Daggett. — Economics of Transportation. 10 Gr., 32 Se., 59 Ju., 28 So., 5 Sp., 4 Sc. Total 138.

6 ^{2}*hf.* Professor Taussig and Asst. Professor Gay. — Economic and Financial History of the United States.
14 Gr., 15 Se., 37 Ju., 10 So., 1 Sp., 2 Sc. Total 79.

8*a* ^{1}*hf.* Asst. Professor Andrew. — Money. A general survey of currency legislation, experience, and theory in recent times.
5 Gr., 7 Se., 22 Ju., 10 So., 1 Fr., 2 Sp., 3 Sc. Total 50.

8*b* ^{2}*hf.* Asst. Professor Andrew. — Banking and the History of the leading Banking Systems.
7 Gr., 12 Se., 56 Ju., 22 So., 1 Fr., 4 Sp., 3 Sc. Total 105.

9*a* ^{1}*hf.* Professor Ripley, assisted by Messrs. Custis and Houghton. — Problems of Labor. 7 Gr., 23 Se., 42 Ju., 17 So., 2 Sp., 5 Sc. Total 96.

10 ^{1}*hf.* Asst. Professor Gay. — Mediaeval Economic History of Europe.
6 Gr., 1 Se., 1 Ju. Total 8.

11. Asst. Professor Gay. — Modern Economic History of Europe.
8 Gr., 2 Se. Total 10.

12*b* ^{1}*hf.* Asst. Professor Andrew. — Commercial Crises and Cycles of Trade.
9 Gr., 20 Se., 20 Ju., 5 So., 1 Sc. Total 55.

14a ^{1}*hf*. Professor Carver. — The Distribution of Wealth.
7 Gr., 25 Se., 9 Ju., 2 So., 2 Sp., 1 Sc. Total 46.

14b ^{2}*hf*. Professor Carver. — Methods of Social Reform. Socialism, Communism, the Single Tax, etc.
10 Gr., 6 Se., 8 Ju., 1 So., 1 Sp., 1 Sc., 2 Di. Total 29.

16. Asst. Professor Bullock. — Public Finance (advanced course).
5 Gr., 2 Se. Total 7.

18. Mr. W. M. Cole. — Principles of Accounting.
6 Gr., 23 Se., 7 Ju., 3 So., 1 Sc., 4 Law. Total 44.

21. Asst. Professor Wyman. — Principles of Law governing Industrial Relations and Commercial Law.
6 Gr., 68 Se., 46 Ju., 19 So., 6 Sp., 5 Sc. Total 150.

23 ^{2}*hf*. Professor Carver. — Economics of Agriculture, with special reference to American conditions.
4 Gr., 10 Se., 11 Ju., 14 So., 1 Fr., 1 Sp., 1 Bu. Total 42.

Primarily for Graduates: —

15. Asst. Professor Bullock. — History and Literature of Economics to the year 1848. 7 Gr. Total 7.

25 ^{2}*hf*. Professor Taussig. — Adam Smith and Ricardo. 3 Gr., 2 Se. Total 5.

Course of Research.

20a. Asst. Professor Gay. — Selected Topics in English Economic History.
4 Gr. Total 4.

The Seminary in Economics.

20. Competent students were guided in investigation, undertaken independently or in connection with courses primarily for graduates; and the results were presented for discussion. 3 Gr., 1 Se. Total 4.

History of Religions.

For Undergraduates and Graduates: —

2. Professor G. F. Moore. — History of Religions in Outline. The Religions of China and Japan, Egypt, Babylonia and Assyria, and the Western Semites (including Judaism and Mohammedanism). The Religions of India, Persia, the Greeks, Romans, Germans, and Celts; Christianity.
2 Gr., 19 Se., 16 Ju., 20 So., 1 Fr., 1 Sp., 12 Di. Total 71.

Primarily for Graduates: —

4 ^{1}*hf*. Professor G. F. Moore. — Judaism, from 198 B.C. to modern times.
1 Gr., 1 Sp. Total 2.

Philosophy.

Primarily for Undergraduates: —

1a. Professors James, Royce, and Münsterberg. — General Introduction to Philosophy. Logic. Psychology.
3 Gr., 2 Se., 62 Ju., 100 So., 30 Fr., 13 Sp., 16 Sc. Total 226.

1b. Professor Palmer and Asst. Professor Perry. — Outlines of the History of Philosophy, Ancient and Modern.
2 Gr., 1 Se., 42 Ju., 33 So., 6 Fr., 10 Sp. Total 94.

For Undergraduates and Graduates: —

2 ^{1}*hf.* Asst. Professor HOLT. — Advanced Psychology.
1 Gr., 8 Se., 1 Ju., 1 So. **Total 11.**

13. Dr. YERKES. — Comparative Psychology.
4 Gr., 3 Se., 5 Ju., 1 So. **Total 13.**

14 ^{2}*hf.* Asst. Professor HOLT. — Experimental Psychology (elementary laboratory course). 1 Gr., 2 Se., 5 Ju., 1 So., 1 Fr., 1 Sp. **Total 11.**

3*a* ^{1}*hf.* Professor OSTWALD (University of Leipzig). — Philosophy of Natural Science. 7 Gr., 12 Se., 13 Ju., 7 So., 1 Fr., 3 Sp., 3 Di. **Total 46.**

4. Professor PALMER. — Ethics. The Theory of Morals, considered constructively. 3 Gr., 7 Se., 7 Ju., 8 So., 1 Sp., 1 Sc., 4 Di. **Total 31.**

9. Professors JAMES and ROYCE. — Metaphysics. The Fundamental Problems of Theoretical Philosophy. The Nature of Reality; Monism and Pluralism; Freedom, Teleology, and Theism.
11 Gr., 7 Se., 4 Ju., 1 So., 1 Sp., 10 Di. **Total 34.**

15. Professor ROYCE. — Theory of Knowledge. The Processes of Conception, Judgment, and Reasoning. The Relations of Thought and Reality. The Elements of Symbolic Logic. 4 Gr., 2 Se., 1 Ju., 1 R. **Total 8.**

18. Dr. J. H. WOODS. — Philosophical Systems of India, with special reference to Vedanta, Sankhya, and Yoga. 1 Gr., 1 Ju., 3 Di. **Total 5.**

12. Asst. Professor PERRY. — Greek Philosophy, with especial reference to Plato. 2 Gr., 2 Se., 2 Ju., 1 Fr., 2 Di. **Total 9.**

11*a* ^{1}*hf.* Dr. J. H. WOODS. — Descartes, Spinoza, and Leibnitz.
3 Gr., 2 Se., 2 So. **Total 7.**

11*b* ^{2}*hf.* Dr. HOCKING. — History of English Philosophy from Locke to Hume.
2 Gr., 4 Se., 1 Sp. **Total 7.**

8. Professor ROYCE. — The Kantian Philosophy.
2 Gr., 1 Se., 1 Ju., 1 Sp., 2 Di. **Total 7.**

10. Asst. Professor PERRY. — Philosophy of History.
1 Gr., 2 Se., 3 Ju., 1 So., 1 Di. **Total 8.**

16 ^{1}*hf.* Professor FENN. — Theism. 2 Gr., 3 Se., 1 So., 6 Di. **Total 12.**

17. Professor E. C. MOORE. — History of Christian Thought since Kant.
2 Gr., 2 Se., 1 Sp., 7 Di. **Total 12.**

7 *hf.* Dr. J. H. WOODS. — Science of Religion.
2 Se., 1 So., 1 Di. **Total 4.**

COURSES OF SPECIAL STUDY.

Primarily for Graduates: —

‡20*a*. Professor MÜNSTERBERG, Asst. Professor HOLT, and Dr. YERKES. — Psychological Laboratory. Experimental investigations.
6 Gr., 1 Se., 1 R. **Total 8.**

20*b*. Professor MÜNSTERBERG. — Psychological Seminary. The Psychology of Truth, Beauty, and Morality. 11 Gr., 1 Ju., 1 Sp., 4 Di. **Total 17.**

‡20*c*. Professor Royce. — Logical Seminary. The Logical Analysis of Fundamental Concepts and their General Relations to Philosophical Problems.
4 Gr., 2 R. Total 6.

‡20*d*. Professor Palmer. — Ethical Seminary. The Ethics of German Idealism.
4 Gr., 9 Di., 1 R. Total 14.

Social Ethics.

For Undergraduates and Graduates: —

1 ^{2}*hf*. Professor Peabody and Dr. Rogers. — Ethics of the Social Questions. The problems of Poor-Relief, the Family, Temperance, and various phases of the Labor Question, in the light of ethical theory.
5 Gr., 24 Se., 59 Ju., 50 So., 2 Fr., 9 Sp., 5 Sc., 11 Di. Total 165.

2 ^{2}*hf*. Dr. Brackett. — Social Ethics. Practical Problems of Charity, Public Aid and Correction. 2 Gr., 3 Se., 2 Ju., 2 So., 1 Sc., 2 Di. Total 12.

3 ^{1}*hf*. Dr. Rogers. — Criminology and Penology.
2 Gr., 20 Se., 17 Ju., 8 So., 1 Sp., 3 Sc., 2 Di. Total 53.

Primarily for Graduates: —

Courses of Research.

20*a* ^{2}*hf*. Professor Peabody. — Seminary of Social Ethics. Religion and the Social Question. 1 Gr., 3 Sp., 13 Di. Total 17.

20*b* ^{2}*hf*. Professor Peabody directed special research in the Ethics of the Social Questions. 1 Di. Total 1.

20*c*. Dr. Brackett. — School for Social Workers. The study of problems of charity, public aid, corrections, etc., including practical work under direction. 1 Se., 2 Sp. Total 3.

Education.

For Undergraduates and Graduates: —

1. Asst. Professor A. O. Norton. — History of Educational Practices and Theories. 1 Gr., 3 Se., 4 Ju., 6 So., 1 Sp., 9 Sc. Total 24.

2*a* ^{1}*hf*. Professor Hanus. — Introduction to the Study of Education. Discussion of Educational Principles.
5 Gr., 16 Se., 12 Ju., 6 So., 2 Sp., 5 Sc. Total 46.

2*b* ^{2}*hf*. Professor Hanus. — Development of Schools and School Systems in the United States, more particularly in Massachusetts. Contemporary Tendencies and Problems. 3 Gr., 5 Se., 3 Ju., 1 So., 3 Sc. Total 15.

5 ^{1}*hf*. Asst. Professor A. O. Norton. — Education of the Individual. Critical and historical study of modern views. 2 Gr., 2 Se., 5 Sc. Total 9.

Primarily for Graduates: —

‡3. Professor Hanus and Asst. Professor A. O. Norton. — Organization and Management of Public Schools and Academies. Supervision, Courses of Study, and Teaching. 6 Gr., 3 Se., 3 Ju., 3 Sc., 10 R. Total 25.

4 ^{2}*hf*. Professor Hanus. — School Systems of England, France, and Germany.
4 Gr., 1 Ju., 1 Sc. Total 6.

SEMINARY COURSE.

‡20*a*. Professor HANUS. — Seminary. Contemporary Problems in Education.
5 Gr. Total 5.

The Fine Arts.

Primarily for Undergraduates: —

1. Professor CHARLES H. MOORE, assisted by Messrs. MOWER and POPE. — Principles of Delineation, Color, and Chiaroscuro, with some consideration of historic forms of Art, and the conditions which have influenced them.
2 Gr., 2 Se., 3 Ju., 15 So., 14 Fr., 5 Sp., 21 Sc. Total 62.

For Undergraduates and Graduates: —

2. Professor CHARLES H. MOORE. — Principles of Design in Architecture, Sculpture, and Painting, as exemplified in the Arts of past ages.
1 Gr., 1 Se., 2 Ju., 4 So., 6 Sc. Total 14.

3. Dr. CHASE, assisted by Mr. THOMAS. — History of Ancient Art. Architecture, Sculpture, and Painting in Egypt, Assyria, and Greece, with some account of the lesser arts.
1 Gr., 6 Se., 29 Ju., 48 So., 4 Fr., 3 Sp., 5 Sc. Total 96.

4. Professor CHARLES H. MOORE, assisted by Messrs. POPE and THOMAS. — The Fine Arts of the Middle Ages and the Renaissance.
1 Gr., 16 Se., 28 Ju., 16 So., 1 Fr., 2 Sc. Total 64.

5. Mr. POPE. — Landscape Painting: its history and principles, with special reference to the works of Turner. 1 Gr., 2 Se., 1 Ju., 3 So. Total 7.

COURSES OF SPECIAL STUDY.

Primarily for Graduates: —

‡20*b*. Professor CHARLES H. MOORE. — History and Principles of Engraving.
2 Gr., 1 Ju. Total 3.

‡20*d*. Dr. CHASE. — Classical Archaeology (advanced course). The history of Greek vase painting. 2 Gr., 1 Se., 1 Ju., 1 R. Total 5.

Architecture.

The courses in Architecture are intended primarily for students in the Lawrence Scientific School, and only Courses 1*a*, 1*b*, 1*c*, 7*a*, 20*b* (*and* 2*a* *when it is taken in connection with* 1*a*) *may be counted towards the degree of A.B.*

For Undergraduates and Graduates: —

1*a*. Professor H. L. WARREN, assisted by Messrs. SWAN and HOYLE. — Technical and Historical Development of the Ancient Styles, with especial reference to Classic Architecture.
1 Gr., 3 Se., 4 Ju., 10 So., 3 Fr., 22 Sc. Total 43.

1*c*. Professor H. L. WARREN, assisted by Mr. HOYLE. — Technical and Historical Development of Renaissance and Modern Architecture.
6 Gr., 8 Se., 8 Ju., 3 So., 1 Fr., 23 Sc. Total 49.

2*a*. Mr. SWAN, assisted by Mr. HOYLE. — Elementary Architectural Drawing. Elements of Architectural Form. The Orders.
1 Gr., 2 Se., 2 Ju., 3 So., 1 Fr., 21 Sc. Total 30.

2*b*. Asst. Professor Mowll. — Descriptive Geometry. Shades, Shadows, Perspective, and Stereotomy. 7 Sc. Total 7.

3*a*. Asst. Professor Mowll and Mr. Swan. — Freehand Drawing. 2 Gr., 1 So., 9 Sc. Total 12.

3*b*. Mr. H. B. Warren and Mr. J. Lindon Smith, assisted by Mr. Swan. — Freehand Drawing (second course). Mr. Murphy. — Drawing from the Life. 3 Gr., 3 Se., 1 Ju., 8 Sc. Total 15.

3*c*. Mr. H. B. Warren and Mr. J. Lindon Smith, assisted by Mr. Swan. — Freehand Drawing (third course). Mr. Murphy. — Drawing from the Life. 13 Sc. Total 13.

4*a*. Asst. Professor Mowll and Mr. Swan; with lectures on the Principles of Design in Architecture, and occasional criticism, by Professor H. L. Warren. — Elementary Architectural Design, 2 Gr., 2 Se., 2 Ju., 15 Sc. Total 21.

4*b*. Professor H. L. Warren and Asst. Professor Mowll. — Architectural Design (second course). 2 Gr., 1 Se., 1 Ju., 7 Sc. Total 11.

4*c*. Professor H. L. Warren and Asst. Professor Mowll, with the coöperation, successively, of Messrs. R. S. Peabody, Wheelwright, Sturgis, and Day. — Architectural Design (third course). 9 Sc. Total 9.

5 ^{1}***hf*.** Mr. Swan. — Building Construction: Carpentry. 1 Gr., 1 Se., 12 Sc. Total 14.

6 *hf*. Mr. Garbutt. — Modelling. 11 Sc. Total 11.

7*a* ^{2}***hf*.** Dr. Ross. — Theory of Pure Design, Balance, Rhythm, and Harmony. 1 Gr., 6 Se., 3 Ju., 4 So., 1 Fr., 1 Sp., 6 Sc. Total 22.

4*d*. Professor H. L. Warren and, successively, Messrs. R. S. Peabody, Wheelwright, Sturgis, and Day. — Architectural Design (advanced course). 1 Gr. Total 1.

Courses of Special Study.

20*a*. Professor H. L. Warren. — Competent students who satisfied the instructor of their fitness to pursue advanced work were directed in the study of special periods in the history of architecture. 1 Gr., 1 Sc. Total 2.

20*b* ^{2}***hf*.** Dr. Ross. — Advanced Practice in Pure Design or in Representation. 4 Se., 2 Ju., 2 Sp. Total 8.

Landscape Architecture.

For Undergraduates and Graduates: —

1. Professor Olmsted and Asst. Professor Pray, with five lectures by Professors Goodale and Shaler. — Principles of Landscape Architecture. 6 Se., 17 Ju., 19 So., 3 Fr., 15 Sc., 2 Bu. Total 62.
2. Professor Olmsted and Mr. Shurtleff. — Practice in Design (first course). 2 Gr., 1 Sc. Total 3.
3. Professor Olmsted and Asst. Professor Pray. — Practice in Design (second course). 2 Sc. Total 2.
4. Mr. Shurtleff. — Details of Construction. 2 Gr., 4 Sc. Total 6.

Music.

For Undergraduates and Graduates :—

1. Asst. Professor Spalding and Mr. Heilman. — Harmony.
2 Se., 10 Ju., 9 So., 17 Fr., 4 Sp. **Total 42.**

1*a*. Mr. Heilman. — Harmony (advanced course). 2 Gr., 1 Ju., 1 Fr. **Total 4.**

2. Asst. Professor Converse. — Counterpoint.
1 Gr., 1 Se., 1 Ju., 7 So., 1 Sp., 3 Fr. **Total 14.**

2*a hf.* Asst. Professor Spalding. — Vocal Counterpoint, with analysis of choral works of the great composers. 2 Gr., 4 Ju., 2 Fr., 1 Sp. **Total 9.**

2*b hf.* Asst. Professor Converse. — Mediaeval or Modal Harmony and its application. 4 Gr., 2 Se., 2 Ju. **Total 8.**

3. Asst. Professor Spalding. — History of Music from the time of Palestrina to the present day. 4 Se., 15 Ju., 18 So., 5 Fr., 2 Sp. **Total 44.**

4. Asst. Professor Spalding and Mr. Heilman. — Musical Form, with analysis of the works of the great composers.
1 Gr., 2 Se., 7 Ju., 8 So., 4 Fr., 1 Sp. **Total 23.**

Primarily for Graduates :—

‡5. Asst. Professor Converse. — Canon and Fugue.
1 Se., 6 Ju., 3 Sp., 1 R. **Total 11.**

‡6. Asst. Professor Converse. — Free Composition.
3 Gr., 2 Se., 1 Ju. **Total 6.**

‡7. Asst. Professor Spalding. — Instrumentation.
3 Gr., 3 Se., 3 Ju., 1 Sp., 1 R. **Total 11.**

Mathematics.

Primarily for Undergraduates :—

F. Professor Bôcher, Asst. Professor Bouton, Dr. Coolidge, and Mr. Whittemore. — Trigonometry and Plane Analytic Geometry.
1 Gr., 3 Ju., 14 So., 63 Fr., 12 Sp. **Total 93.**

C. Dr. Coolidge. — Plane and Solid Analytic Geometry (extended course).
1 Gr., 2 Ju., 3 So., 15 Fr., 2 Sp., 1 Sc. **Total 24.**

D^{2}*hf.* Mr. Whittemore. — Algebra.
1 Gr., 1 Se., 6 Ju., 13 So., 28 Fr., 3 Sp., 7 Sc. **Total 59.**

E^{1}*hf.* Professor Byerly, Asst. Professor Bouton, Dr. Coolidge, and Mr. Whittemore. — Solid Geometry.
6 Se., 8 Ju., 22 So., 24 Fr., 11 Sp., 24 Sc. **Total 95.**

1^{2}*hf.* Asst. Professor Bouton. — Solid Analytic Geometry.
1 Gr., 3 So., 1 Fr., 1 Sc. **Total 6.**

2. Professor Osgood. — Differential and Integral Calculus (first course).
2 Gr., 1 Se., 9 Ju., 28 So., 4 Sc. **Total 44.**

4. Professor Osgood. — The Elements of Mechanics.
4 Gr., 2 Se., 8 Ju., 3 So., 5 Sc. **Total 22.**

For Undergraduates and Graduates: —

3. Professor **Byerly.** — Introduction to Modern Geometry and Modern Algebra. 3 Gr., 1 Se., 2 Ju., 5 So. Total 11.

3*b* ^{1}*hf.* Professor J. M. **Peirce.** — Introduction to Higher Plane Curves. 1 Gr., 1 Se., 5 Ju. Total 7.

5. Professor **Byerly.** — Differential and Integral Calculus (second course). 6 Gr., 2 Se., 6 Ju., 2 So., 1 Sc. Total 17.

12 ^{1}*hf.* Professor **Osgood.** — Infinite Series and Products. 3 Gr., 1 Se., 1 Ju. Total 5.

14*a* ^{2}*hf.* Professor **Bôcher.** — Algebra. The Properties of Polynomials; Invariants. 6 Gr., 1 Ju., 1 Sc. Total 8.

18 ^{2}*hf.* Asst. Professor **Bouton.** — The Elementary Theory of Differential Equations. 2 Gr., 1 Se. Total 3.

6. Professor J. M. **Peirce** and Professor E. B. **Wilson** (Yale University). — The Calculus of Quaternions (first course). Elementary principles and applications. 8 Gr., 2 Se., 3 Ju. Total 13.

‡7*a* ^{2}*hf.* Professor J. M. **Peirce** and Dr. **Coolidge.** — Triangular Coördinates of Points and Lines in a Plane. The General Theory of Algebraic Plane Curves. Plane Curves of the Third Degree in Point and Line Coördinates. 1 Se., 2 Ju. Total 3.

32*a* ^{1}*hf.* Mr. **Whittemore.** — Celestial Mechanics. 2 Gr. Total 2.

Primarily for Graduates: —

‡13. Professor **Bôcher.** — The Theory of Functions (introductory course). 6 Gr., 1 Se., 1 Ju., 2 R., 1 Sp., 1 Di. Total 12.

‡29. Dr. **Coolidge.** — Non-Euclidean Geometry. 1 Gr., 1 Se. Total 2.

‡27 ^{2}*hf.* Asst. Professor **Huntington.** — The Fundamental Concepts of Mathematics. 1 Gr., 1 Ju., 1 So., 1 R. Total 4.

‡10. Professors **Byerly** and B. O. **Peirce.** — Trigonometric Series. Introduction to Spherical Harmonics. The Potential Function. 5 Gr., 2 Ju. Total 7.

‡33. Professor B. O. **Peirce.** — Methods in Mathematical Physics. Elasticity; Capillarity; the Theory of the Tides; the application of the Lagrangian Equations to problems in Electromagnetism. 3 Gr., 1 Se., 1 R. Total 5.

‡17 ^{2}*hf.* Professor **Osgood.** — The Theory of Functions (advanced course): Riemann's Theory of Functions. 3 Gr., 1 R. Total 4.

‡31 ^{1}*hf.* Professor **Bôcher.** — Definite Integrals and Integral Equations. 4 Gr., 2 R. Total 6.

‡25. Asst. Professor **Bouton.** — Geometrical Transformations, with special reference to the work of Sophus Lie. 1 Gr., 1 R. Total 2.

Courses of Reading and Research.

20*e*. Professor W. F. **Osgood.** — Special Topics in the Theory of Logarithmic Potential. 1 Gr. Total 1.

‡20*f*. Professor **Bôcher.** — Fluctuating Functions. 2 Gr. Total 2.

‡20*g*. Asst. Professor **Bouton.** — Topics in the Theory of Continuous Groups. 1 R. Total 1.

Astronomy.

Primarily for Undergraduates: —

1 ^{1}*hf.* Professor Willson and Mr. Brenke. — Descriptive Astronomy.
28 Se., 30 Ju., 60 So., 11 Fr., 3 Sp., 34 Sc. **Total 166.**

2 ^{2}*hf.* Professor Willson and Mr. Brenke. — Practical Astronomy. Application of Astronomy to Navigation and Exploration.
1 Se., 8 Ju., 10 So., 9 Sc. **Total 28.**

For Undergraduates and Graduates: —

3. Professor Willson. — Practical Astronomy. Portable and fixed instruments.
1 Se., 1 Ju. **Total 2.**

Physics.

Primarily for Undergraduates: —

B. Professor Hall, Dr. G. W. Pierce, and Mr. J. M. Adams. — Experimental Physics (elementary course).
1 Gr., 3 Ju., 21 So., 18 Fr., 9 Sp., 27 Sc. **Total 79.**

C. Professor Sabine and Dr. H. W. Morse. — Experimental Physics. Mechanics, Sound, Light, Magnetism, and Electricity.
2 Gr., 3 Se., 12 Ju., 33 So., 37 Fr., 9 Sp., 83 Sc., 1 Bu. **Total 180.**

1. Professor Hall and Mr. Serviss. — General Descriptive Physics.
2 Se., 3 Ju., 8 So., 7 Fr., 1 Sp., 10 Sc. **Total 31.**

2 ^{1}*hf.* Professor Sabine. — The Theory of Light in its application to familiar optical phenomena and to optical instruments. 2 So., 1 Sc. **Total 3.**

11 ^{1}*hf.* Dr. H. W. Morse. — The Theory of Primary and Secondary Batteries.
1 Se., 4 Ju., 3 So., 5 Sc. **Total 13.**

For Undergraduates and Graduates: —

3. Professor B. O. Peirce and Mr. H. N. Davis. — Electrostatics, Electrokinematics and parts of Electromagnetism.
2 Gr., 1 Se., 6 Ju., 1 So., 16 Sc. **Total 26.**

12 ^{1}*hf.* Dr. Lyman. — Radioactivity and Electric Conduction in Gases with special reference to the Theory of Ions.
3 Gr., 1 Se., 4 Ju., 3 So., 1 Sp., 1 Sc. **Total 13.**

17 ^{2}*hf.* Dr. G. W. Pierce. — Electric Waves and their Application to Wireless Telegraphy. 5 Se., 5 Ju., 1 So., 1 Sp., 9 Sc. **Total 21.**

4. Professor Trowbridge, Dr. G. W. Pierce, and Dr. Lyman. — Magnetism, Electromagnetism, and Electrodynamics.
1 Gr., 3 Se., 1 Ju., 14 Sc. **Total 19.**

5. Professor Sabine. — Light. 2 Gr., 1 Se., 2 Ju. **Total 5.**

6*a* ^{1}*hf.* Professor Hall. — Elements of Thermodynamics.
4 Gr., 2 Se., 1 Ju., 1 Sc. **Total 8.**

6*b* ^{2}*hf.* Professor Hall. — Modern Developments and Applications of Thermodynamics. 3 Gr., 1 Se., 1 Ju. **Total 5.**

14 ^{2}*hf.* Dr. H. W. Morse. — The Theory of Photography.
1 Gr., 2 Se., 2 Ju., 2 So., 1 Fr., 3 Sc. **Total 11.**

Primarily for Graduates: —

‡10. Professor B. O. Peirce. — The Mathematical Theory of Electricity and Magnetism (second course). 4 Gr., 1 Se. Total 5.

Courses of Research.

20*a*. Professor Trowbridge. — Light and Electricity. 2 Instr. Total 2.

20*b*. Professor B. O. Peirce. — Electricity and Magnetism. 1 Gr. Total 1.

20*c*. Professor Hall. — Heat and Electricity. 1 Gr. Total 1.

20*d*. Professor Sabine. — Light and Heat. 2 Gr. Total 2.

20*e*. Dr. G. W. Pierce. — Radiation and Electromagnetic Waves. 1 Gr. Total 1.

20*f*. Dr. H. W. Morse. — Molecular Physics. 1 Gr. Total 1.

Chemistry.

Primarily for Undergraduates: —

1. Professor C. L. Jackson, Dr. L. Clarke, Mr. Bellamy, and seven assistants. — Descriptive Inorganic Chemistry.
1 Gr., 10 Se., 25 Ju., 68 So., 85 Fr., 11 Sp., 110 Sc., 1 Bu. Total 311.

2 ^{1}*hf*. Asst. Professor Torrey. — Organic Chemistry (elementary course).
2 Gr., 8 Se., 22 Ju., 38 So., 6 Fr., 3 Sp., 16 Sc. Total 95.

3. Professor Sanger, Mr. Chapin, and four assistants. — Qualitative Analysis.
5 Se., 27 Ju., 32 So., 3 Fr., 3 Sp., 29 Sc. Total 99.

For Undergraduates and Graduates: —

17^1. Professor Ostwald (University of Leipzig). — Fundamental Conceptions of Chemistry. 15 Gr., 1 Se., 1 Sc. Total 17.

18^1. Professor Ostwald (University of Leipzig). — Catalysis.
7 Gr., 1 Se., 1 Sc. Total 9.

4. Asst. Professor Baxter and Mr. Hines. — Quantitative Analysis, gravimetric and volumetric.
2 Gr., 2 Se., 6 Ju., 9 So., 1 Fr., 1 Sp., 7 Sc. Total 28.

8 ^{2}*hf*. Professor Richards and Dr. Lamb. — The Historical Development of Chemical Theory. Elementary Physical Chemistry.
5 Gr., 5 Se., 17 Ju., 27 So., 4 Fr., 2 Sp., 12 Sc., 1 Me. Total 73.

11. Professor Sanger and Professor Walker (Mass. Institute of Technology). — Industrial Chemistry. 7 Gr., 6 Se., 3 Ju., 2 So., 9 Sc., 1 Bu. Total 28.

9 ^{1}*hf*. Asst. Professor Baxter and Mr. Griffin. — Advanced Quantitative Analysis. 8 Gr., 1 Ju., 5 Sc. Total 14.

10 ^{2}*hf*. Asst. Professor Baxter and Mr. Griffin. — Gas Analysis.
6 Gr., 2 Se., 2 Ju., 7 Sc. Total 17.

5. Asst. Professor Torrey and Mr. Kipper. — The Carbon Compounds.
7 Gr., 7 Se., 8 Ju., 6 So., 10 Sc., 1 Bu. Total 39.

5*a hf*. Asst. Professor Torrey and Mr. Kipper. — The Carbon Compounds. Laboratory work. 6 Gr., 6 Se., 4 Ju., 5 So., 9 Sc., 1 Bu. Total 31.

15 ^{2}*hf.* Dr. Henderson. — General Biological Chemistry.
3 Gr., 5 Se., 3 Ju., 3 So., 5 Sc., 1 Bu. Total 20.

Primarily for Graduates: —

6. Professor Richards and Mr. Frevert. — Physical Chemistry.
9 Gr., 7 Se., 3 Ju., 1 So., 8 Sc. Total 28.

12 ^{1}*hf.* Asst. Professor Baxter. — Photochemistry, including the use of Optical Instruments in Chemistry. 3 Gr., 2 Se., 1 Ju., 2 Sc. Total 8.

7 ^{2}*hf.* Dr. Lamb. — Electrochemistry. 8 Gr., 4 Se., 1 Ju., 5 Sc. Total 18.

13 ^{2}*hf.* Dr. Lamb. — Experimental Electrochemistry. 3 Gr., 2 Sc. Total 5.

14*a.* Dr. Forbes. — Chemical Kinetics.
8 Gr., 3 Se., 1 Ju., 2 So., 7 Sc. Total 21.

16 ^{1}*hf.* Asst. Professor Torrey. — The General Reactions of Organic Chemistry. 3 Gr., 2 Se., 5 Sc. Total 10.

Courses of Research.

20*a.* Professor Richards. — Inorganic Chemistry, including Determination of Atomic Weights. 2 Gr. Total 2.

20*b.* Professor C. L. Jackson. — Organic Chemistry. 2 Gr. Total 2.

20*c.* Asst. Professor Torrey. — Organic Chemistry.
3 Gr., 2 Se., 3 Sc. Total 8.

20*d.* Professor Richards.— Physical Chemistry, including Electrochemistry.
6 Gr. Total 6.

20*e.* Professor Sanger. — Applied Chemistry. 1 Sc. Total 1.

20*f.* Asst. Professor Baxter. — Inorganic Chemistry, including Determination of Atomic Weights. 5 Gr., 1 Se. Total 6.

Engineering.

The courses in Engineering are intended primarily for students in the Lawrence Scientific School, but many of them may be counted towards the degree of A.B. The Catalogue shows what courses may be so counted.

1*a* ^{1}*hf.* Asst. Professors Love and Huntington, and Messrs. Frizell and H. N. Davis. — Algebra. 3 Se., 5 Ju., 7 So., 2 Fr., 2 Sp., 92 Sc. Total 111.

1*b* $^{1 \text{ or } 2}$*hf.* Asst. Professors Love and Huntington, and Mr. Frizell. — Trigonometry. 3 Se., 10 Ju., 17 So., 19 Fr., 3 Sp., 101 Sc. Total 153.

1*d* ^{2}*hf.* Asst. Professors Love and Huntington, and Mr. Frizell. — Analytic Geometry. 3 Se., 3 Ju., 13 So., 4 Fr., 104 Sc. Total 127.

1*c.* Asst. Professors Love and Huntington, and Messrs. Frizell and Hogg.— Differential and Integral Calculus. 3 Se., 6 Ju., 7 So., 66 Sc. Total 82.

3*a.* Messrs. A. E. Norton, A. A. Parker, Alden, and A. B. Green. — Mechanical Drawing. 6 Se., 10 Ju., 18 So., 16 Fr., 98 Sc. Total 148.

3*b* ^{2}*hf.* Mr. A. E. Norton. — Descriptive Geometry.
1 Se., 5 Ju., 7 So., 1 Fr., 45 Sc. Total 59.

3d ^{1}*hf*. Mr. A. E. Norton and Mr. Barclay. — Mechanism. Study of Gearing and Mechanical Movements.
2 Se., 4 Ju., 6 So., 1 Sp., 50 Sc. Total 63.

4a. Asst. Professor Hughes and assistants. — Plane and Topographical Surveying. (See page 96.) 18 Ju., 38 So., 3 Fr., 4 Sp., 40 Sc. Total 103.

4c. Asst. Professor Hughes and assistants. — Geodetic Surveying. (See page 96.) 10 Ju., 28 So., 3 Fr., 3 Sp., 32 Sc. Total 76.

4d. Asst. Professor Hughes and assistants. — Railroad Engineering. (See page 96.) 2 Se., 11 Ju., 28 So., 3 Fr., 3 Sp., 35 Sc. Total 82.

10a. Messrs. Whiting and Markham. — Chipping, Filing, and Fitting. (See page 97.) 1 Se., 1 So., 1 Fr., 30 Sc. Total 33.

10b. Messrs. Whiting and Markham. — Blacksmithing. (See page 97.)
1 Se., 1 So., 1 Fr., 30 Sc. Total 33.

10c. Messrs. Whiting and Markham. — Pattern-making and Foundry Practice. (See page 97.) 1 Se., 1 So., 1 Fr., 27 Sc. Total 30.

10e. Messrs. Whiting and Markham. — Machine Shop Practice. (See page 97.) 1 Se., 1 So., 1 Fr., 28 Sc. Total 31.

For Undergraduates and Graduates : —

4e ^{2}*hf*. Professor Olmsted, Asst. Professors Hughes and Pray. — Road Making and Maintenance. 1 Gr., 13 Sc. Total 14.

4f ^{2}*hf*. Asst. Professor Hughes. — Railroad Engineering (second course). Problems in railroad construction and maintenance.
2 Gr., 3 Se., 8 Sc. Total 13.

5b ^{1}*hf*. Asst. Professor Johnson and Mr. E. C. Brown. — Elementary Statics. Graphic and Algebraic Methods.
3 Gr., 5 Se., 12 Ju., 5 So., 1 Fr., 1 Sp., 77 Sc. Total 104.

5e ^{2}*hf*. Asst. Professors Johnson and Huntington. — Elementary Kinematics and Kinetics. 3 Se., 8 Ju., 3 So., 54 Sc. Total 68.

5d ^{2}*hf*. Mr. A. E. Norton. — Resistance of Materials (introductory course for students of Architecture). Elementary Structural Design.
1 Gr., 1 Se., 1 Ju., 3 Sc. Total 6.

5a. Professor Hollis, Asst. Professor Hughes, and Mr. Durfee. — Applied Mechanics, including Resistance of Materials.
3 Gr., 6 Se., 2 Ju., 1 So., 56 Sc. Total 68.

5f. Asst. Professors Johnson and Hughes. — Applied Mechanics (second course). Problems involved in the design of Bridges and Buildings.
1 Gr., 6 Sc. Total 7.

5g ^{2}. Professor Hollis. — Applied Mechanics (second course). Problems involved in the design of Machinery and Boilers. 10 Sc. Total 10.

6a ^{2}*hf*. Asst. Professor Hughes and Mr. Durant. — Hydraulics and Hydraulic Motors. 2 Gr., 6 Se., 55 Sc. Total 63.

6c ^{1}*hf*. Asst. Professor Hughes. — Water Supply and Sanitary Engineering.
1 Gr., 1 Se., 9 Sc. Total 11.

6d ^{1}*hf*. Asst. Professor Hughes. — Canals, Rivers, and Harbors. Irrigation. 1 Gr., 1 Se., 8 Sc. Total 10.

7a. Asst. Professor Johnson. — Bridges and Buildings. Design of Framed Structures. 1 Gr., 6 Sc. Total 7.

8a ^{2}*hf*. Asst. Professor Johnson. — Building Stones, Masonry and Foundations. 2 Gr., 3 Se., 26 Sc. Total 31.

11*a* ^{2}*hf*. Asst. Professor Marks, Messrs. Markham and Durant. — Steam Machinery (introductory course). 1 Gr., 4 Se., 11 Ju., 21 So., 3 Fr., 63 Sc. Total 103.

12*b* ^{1}*hf*. Asst. Professor Marks and Mr. Tyng. — Elements of Thermodynamics. Theory of Heat Engines. 1 Gr., 6 Se., 1 Ju., 1 So., 48 Sc. Total 57.

12*a* ^{1}*hf*. Asst. Professor Marks. — Efficiency and Economics of Heat Engines. 10 Sc. Total 10.

13*a*. Asst. Professor Marks, Messrs. Tyng and Durant. — Engineering Laboratory. Introductory course in experimental methods. 6 Se., 1 So., 57 Sc. Total 64.

13*b*^{1}. Asst. Professor Marks and Mr. Durant. — Engineering Laboratory (second course). 10 Sc. Total 10.

14*b*^{2}. Professor Hollis. — Machine Design (second course). 10 Sc. Total 10.

16*a*. Professor Kennelly, Asst. Professor Adams, and Mr. Whiting. — Generation, Transmission, and Utilization of Electrical Energy (elementary course). 1 Gr., 7 Se., 5 Ju., 2 So., 31 Sc. Total 46.

16*c*. Professor Kennelly. — Direct Current Dynamo-Electric Machinery. 2 Se., 1 Ju., 13 Sc. Total 16.

16*e*. Asst. Professor Adams. — Alternating Currents and Alternating Current Machinery. 17 Sc. Total 17.

16*d*. Asst. Professor Adams. — Dynamo Design. 16 Sc. Total 16.

16*f*. Mr. Whiting. — Electrical Engineering Laboratory. 16 Sc. Total 16.

17*a* ^{1}*hf*. Professor Kennelly. — Electric Transmission and Distribution of Power. 1 Gr., 17 Sc. Total 18.

17*b* ^{2}*hf*. Professor Kennelly. — Telegraphy and Telephony. 18 Sc. Total 18.

21. Conference on Engineering Subjects. 1 Gr., 36 Sc. Total 37.

22^{2}. Asst. Professor Wyman. — Contracts and Specifications. General Principles of Common Law governing Construction Contracts. 7 Gr., 5 Se., 1 So., 55 Sc. Total 68.

Courses of Research.

Primarily for Graduates: —

20*b*. Asst. Professor Marks. Heat engines. 1 Gr. Total 1.

20*c*. Professor Kennelly. Dynamo-Electric Machinery. 1 Gr., 1 Sc. Total 2.

20*d*. Asst. Professor Johnson. Reinforced Concrete. 1 Gr. Total 1.

Forestry.

For Undergraduates and Graduates: —

1a ^{1}*hf.* Asst. Professor Fisher. — Elements of Silviculture.
3 Gr., 2 Se., 1 Ju., 2 So., 10 Sc., 3 Bu. Total 21.

1b ^{2}*hf.* Asst. Professor Fisher. — Practical Silviculture.
1 Gr., 3 Se., 1 So., 5 Sc., 2 Bu. Total 12.

2 ^{1}*hf.* Mr. Hawley. — Forest Measurements. 1 Se., 5 Sc. Total 6.

3. Messrs. Jack and Clarke. — Forest Botany.
1 Se., 1 So., 6 Sc., 4 Bu. Total 12.

4 ^{2}*hf.* Asst. Professor Cary. — Forest Protection.
1 Gr., 10 Sc., 3 Bu. Total 14.

5 ^{1}*hf.* Asst. Professor Fisher. — Forest History. 1 So., 2 Sc. Total 3.

6. Asst. Professor Cary. — Lumbering. 3 Sc. Total 3.

7. Asst. Professors Fisher and Cary. — Forest Management.
3 Sc., 1 Bu. Total 4.

Botany.

Primarily for Undergraduates: —

1 ^{2}*hf.* Professor Goodale and assistants. — Botany (introductory course).
1 Gr., 3 Se., 16 Ju., 43 So., 47 Fr., 10 Sp., 27 Sc. Total 147.

2 ^{1}*hf.* Asst. Professor Jeffrey, assisted by Messrs. Chivers and Riddle. — Morphology of Plants. 2 Se., 7 Ju., 10 So., 2 Fr., 2 Sp., 11 Sc. Total 34.

For Undergraduates and Graduates: —

3a ^{1}*hf.* Asst. Professor Jeffrey, assisted by Mr. J. G. Hall. — Morphology, Histology, and Cytology of Flowering Plants. 1 Se., 2 Sc. Total 3.

3b ^{2}*hf.* Asst. Professor Jeffrey, assisted by Mr. J. G. Hall. — Œcology and Physiology of Flowering Plants. 1 Se., 2 Sc. Total 3.

4 ^{2}*hf.* Asst. Professor Jeffrey, assisted by Mr. Chivers. — The Algae, Liverworts, and Mosses. 1 Sc. Total 1.

5. Professor Goodale and Mr. Ames. — Outlines of Economic Botany.
1 Se. Total 1.

7. Mr. Fernald. — Classification and Distribution of Flowering Plants, with special reference to the Flora of New England and the Maritime Provinces.
1 Se., 1 So., 1 Sc. Total 3.

8 ^{1}*hf.* Asst. Professor Jeffrey, assisted by Dr. Chrysler. — The Anatomy, Development, and Phylogeny of the Tracheate Zoidogama (Pteridophyta, Cycadofilices, Fossil and Lower Gymnosperms). 2 Gr., 1 Se. Total 3.

Primarily for Graduates: —

COURSES OF RESEARCH.

20a. Professor Goodale and Asst. Professor Jeffrey. — Experimental Vegetable Physiology. Economic Botany, with special reference to Tropical Plants. Structure and Development of Vascular Plants. 1 Gr. Total 1.

20*b*. Professor Farlow and Asst. Professor Jeffrey. — Structure and Development of Cryptogams. 3 Gr., 1 Se. Total 4.

20*c*. Professor B. L. Robinson. — Taxonomy of Phanerogams. 1 Gr. Total 1.

Zoölogy.

Primarily for Undergraduates: —

1 ^{1}*hf*. Asst. Professor G. H. Parker, Mr. L. J. Cole, and other assistants. — Zoölogy (introductory course).
2 Gr., 6 Se., 15 Ju., 31 So., 32 Fr., 8 Sp., 25 Sc. Total 119.

2 ^{2}*hf*. Asst. Professor Castle, Mr. Field, and other assistants. — Morphology of Animals. 2 Gr., 2 Se., 10 Ju., 10 So., 3 Fr., 1 Sp., 9 Sc. Total 37.

For Undergraduates and Graduates: —

3. Dr. H. W. Rand and Mr. Walter. — Comparative Anatomy of Vertebrates. 3 Gr., 2 Se., 6 Ju., 2 So., 8 Sc. Total 21.

4 ^{1}*hf*. Professor Mark and Dr. H. W. Rand. — Microscopical Anatomy.
2 Gr., 1 Se., 2 Ju., 1 Sc. Total 6.

6 ^{2}*hf*. Professor Mark and Dr. H. W. Rand. — Embryology of Vertebrates. Organogeny. 3 Gr., 2 Ju., 1 Sc. Total 6.

11*a* ^{1}*hf*. Asst. Professor Castle. — Variation, Heredity, and the Principles of Animal Breeding. 10 Gr., 2 Se., 1 Ju., 1 Sc. Total 14.

11*b* ^{2}*hf*. Asst. Professor Castle. — Natural History of the Domesticated Animals.
9 Gr., 1 Se., 1 Ju., 1 Sc. Total 12.

13 ^{1}*hf*. Asst. Professor G. H. Parker. — Comparative Histology. Epithelial and Nervous Tissues. 6 Gr., 2 Ju. Total 8.

15 ^{2}*hf*. Asst. Professor G. H. Parker. — The Structure and Functions of the Nervous System and its Relation to Animal Habits. Sense Organs.
7 Gr., 2 Ju. Total 9.

Primarily for Graduates: —

Course of Research.

20. Professor Mark, Asst. Professors G. H. Parker and Castle. — Zoölogical Investigations. 12 Gr., 1 Se., 1 Sc. Total 14.

Geology.

Geology and Geography.

Primarily for Undergraduates: —

A ^{1}*hf*. Dr. P. S. Smith, assisted by Mr. Saunders. — Physiography of the Lands.
2 Gr., 6 Se., 6 Ju., 9 So., 13 Fr., 5 Sp., 19 Sc., 3 Bu. Total 63.

B ^{2}*hf*. Asst. Professor Ward, assisted by Mr. Saunders. — Meteorology (elementary course). 3 Se., 7 Ju., 8 So., 5 Fr., 5 Sp., 14 Sc. Total 42.

4 ^{1}*hf*. Professor Shaler, assisted by Dr. P. S. Smith; and Asst. Professor Woodworth, assisted by Messrs. Eggleston, Eaton, and R. R. Kent. — Elementary Dynamical Geology.
1 Gr., 2 Se., 10 Ju., 16 So., 16 Fr., 1 Sp., 46 Sc. Total 92.

5 ^{2}*hf.* Asst. Professor Woodworth, assisted by Mr. Eggleston. — Elementary Historical Geology.
1 Gr., 3 Se., 7 Ju., 7 So., 5 Fr., 33 Sc., 1 Bu. Total 57.

1 ^{1}*hf.* Asst. Professor Ward. — Meteorology (second course).
2 Se., 1 Ju., 1 So., 1 Fr., 2 Sc. Total 7.

For Undergraduates and Graduates: —

7 ^{2}*hf.* Professor Davis and an assistant. — Physiography of Europe.
4 Gr., 4 Se., 3 Ju., 1 So., 1 Fr., 8 Sc. Total 21.

8 ^{1}*hf.* Asst. Professor Woodworth. — Advanced General Geology.
5 Gr., 1 Se., 5 Ju., 1 So., 16 Sc., 1 Bu. Total 29.

10. Professor H. L. Smyth, assisted by Mr. Gale. — Mining Geology.
3 Gr., 2 Se., 3 Ju., 16 Sc. Total 24.

22. Asst. Professor Jaggar, assisted by Mr. Mansfield. — Advanced Geological Field Work. Areal Geology in the vicinity of Boston.
4 Gr., 1 Ju., 2 Sc. Total 7.

16 ^{2}*hf.* Asst. Professor Woodworth. — Glacial Geology.
2 Gr., 3 Se., 5 Ju., 6 Sc. Total 16.

2 ^{2}*hf.* Asst. Professor Ward. — Climatology of the United States.
4 Se., 4 So., 1 Fr., 6 Sc. Total 15.

19 ^{1}*hf.* Asst. Professor Ward. — General Climatology.
1 Gr., 2 Se., 1 Ju., 1 Sc. Total 5.

14 ^{1}*hf.* Professor Shaler, assisted by Mr. Barrows. — General Palaeontology.
1 Gr., 7 Se., 4 Ju., 3 So., 5 Sc. Total 20.

23 ^{2}*hf.* Professor Shaler, assisted by Mr. Barrows. — Comparative Geology.
1 Se., 1 Ju., 1 So., 2 Sc. Total 5.

Primarily for Graduates: —

Courses of Research.

‡20*a*. Professor Davis. — Physiography (advanced course). 2 Gr. Total 2.

20*b*. Professor H. L. Smyth. — Mining Geology (advanced course).
1 Gr., 4 Sc. Total 5.

20*c*. Professors Shaler, Davis, Wolff, and H. L. Smyth, Asst. Professors Woodworth and Jaggar. — Geological Investigation in the Field and Laboratory. 2 Gr., 1 Se., 1 Ju., 2 Sc. Total 6.

20*d*. Professor Shaler. — Advanced Palaeontology. 1 Se. Total 1.

20*e*. Asst. Professor Ward. — Climatology (advanced course). 1 Ju. Total 1.

Mineralogy and Petrography.

Primarily for Undergraduates: —

2. Asst. Professor Palache, assisted by Mr. R. W. Richards. — Mineralogy (including Crystallography, Physical and Chemical Mineralogy, and Descriptive Mineralogy). 3 Se., 5 Ju., 6 So., 18 Sc. Total 32.

For Undergraduates and Graduates: —

7 ^{1}*hf.* Asst. Professor Palache. — Advanced Mineralogy and Crystallography.
1 Gr., 1 Sc. Total 2.

12. Professor Wolff. — Petrography. 4 Gr., 1 Ju., 12 Sc. Total 17.

Mining and Metallurgy.

Primarily for Undergraduates: —

1 ^{2}*hf.* Professor H. L. Smyth and Asst. Professor Raymer, assisted by Mr. Gale. — Elements of Mining. Prospecting, exploring, development and the principles of exploitation. Stamp-milling and ore-concentration.
2 Gr., 2 Se., 4 Ju., 9 Sc. Total 17.

6 ^{2}*hf.* Asst. Professor C. H. White, assisted by Mr. Granger. — Metallurgical Chemistry. 1 Gr., 2 Se., 2 So., 12 Sc. Total 17.

9 ^{2}*hf.* Asst. Professor Sauveur and Dr. Boynton. — General Metallurgy.
2 Gr., 3 Se., 3 Ju., 4 So., 1 Sp., 10 Sc. Total 23.

10 ^{1}*hf.* Asst. Professor Raymer, assisted by Messrs. Scholl and Granger. — Fire Assaying. 1 Gr., 3 Se., 2 Ju., 1 So., 10 Sc. Total 17.

For Undergraduates and Graduates: —

2 ^{1}*hf.* Asst. Professor Sauveur and Dr. Boynton. — Metallurgy of Iron and Steel. 1 Gr., 3 Se., 38 Sc. Total 42.

3 ^{2}*hf.* Professor Peters, assisted by Messrs. Scholl and Granger. — Metallurgy of Copper, Lead, Zinc, and the Minor Metals, and of the Precious Metals in connection with Copper and Lead.
1 Gr., 1 So., 16 Sc. Total 18.

4. Asst. Professor Raymer, assisted by Mr. Scholl. — Ore-dressing, Concentration, and Milling. 13 Sc. Total 13.

5 ^{1}*hf.* Professor H. L. Smyth, assisted by Mr. Gale. — Metal and Coal Mining; Exploitation. 1 Gr., 15 Sc. Total 16.

7. Asst. Professor C. H. White. — Metallurgical Chemistry (advanced course).
2 Sc. Total 2.

11$_2^2$*hf.* Asst. Professor Raymer. — Mining Plant. 1 So., 12 Sc. Total 13.

12. Professor H. L. Smyth. — Mining. The study of mining operations.
10 Sc. Total 10.

14 ^{2}*hf.* Asst. Professor Sauveur and Dr. Boynton. — Metallography.
1 Gr., 3 Sc. Total 4.

15 ^{2}*hf.* Professor Peters. — Metallurgy of Zinc, Nickel, Tin, Mercury, and the Minor Metals. 1 So., 3 Sc. Total 4.

Primarily for Graduates: —

8^1. Asst. Professor C. H. White. — Leaching Processes for Gold and Silver Ores. 4 Sc. Total 4.

17^2. Asst. Professor Raymer. — Mine Surveying. 3 Sc. Total 3.

22^1. Asst. Professors Raymer and C. H. White. — Problems in the Treatment of Ores. 2 Sc. Total 2.

24^2. Professor H. L. Smyth. — Mine Examination and Reports.
1 Gr., 4 Sc. Total 5.

26 ^{2}*hf.* Professor Peters. — Advanced Course in the Metallurgy of Copper, Lead, and the Minor Metals. 9 Sc. Total 9.

28 ^{1}*hf.* Asst. Professor Jaggar, assisted by Mr. Mansfield. — Geological Surveying. 13 Sc. Total 13.

30^2. The Instructors in the Department. — Mining and Metallurgical Projects and Design. 4 Sc. Total 4.

COURSE OF RESEARCH.

20. Asst. Professor SAUVEUR. — Metallurgy and the Physics of Metals.
2 Gr., 2 Sc. Total 4.

Anthropology.

Primarily for Undergraduates: —

1. Dr. FARABEE, assisted by Mr. STEFÁNSSON. Occasional lectures by Professor PUTNAM — General Anthropology.
3 Se., 24 Ju., 27 So., 1 Fr., 4 Sp., 2 Sc., 1 Bu. Total 62.

For Undergraduates and Graduates: —

5. Dr. DIXON, assisted by Mr. STEFÁNSSON. Occasional lectures by Professor PUTNAM. — American Archaeology and Ethnology.
10 Se., 16 Ju., 46 So., 2 Fr., 3 Sc., 1 Bu. Total 78.

4 ^{1}*hf.* Dr. FARABEE. — Prehistoric Archaeology. European Ethnography.
1 Gr., 4 Se., 2 Ju., 3 So., 3 Sc., 1 Bu. Total 14.

7 ^{2}*hf.* Dr. DIXON. — Ethnology of Oceania.
2 Se., 1 Ju., 2 So., 1 Sc., 1 Bu. Total 7.

Primarily for Graduates: —

‡2 ^{2}*hf.* Dr. FARABEE. — Somatology. 1 Gr., 3 Se., 1 Ju., 1 So. Total 6.

‡9 ^{1}*hf.* Dr. TOZZER. — Archaeology and Ethnology of Central America.
2 Se., 1 Ju., 1 So. Total 4.

COURSES OF RESEARCH.

‡20*a*. Professor PUTNAM. — American Archaeology and Ethnology.
1 Gr., 3 Se., 2 Ju., 1 So. Total 7.

‡20*b*. Dr. FARABEE. — Advanced Somatology. 1 Gr. Total 1.

‡20*c*. Dr. DIXON. — Studies in American Languages. 1 Se., 1 So. Total 2.

20*d*. Dr. DIXON. — General Ethnology. 1 Gr. Total 1.

Anatomy, Physiology, and Hygiene.

1. Drs. DARLING, PROVANDIE, BACON, HAPGOOD and JOUETT. — Elementary Anatomy and Physiology. Personal Hygiene. Emergencies.
1 Gr., 18 Se., 57 Ju., 57 So., 6 Fr., 4 Sp., 10 Sc. Total 153.

In accordance with the vote of the President and Fellows whereby the Faculty may under certain conditions authorize a Doctor of Philosophy or a Doctor of Science to give instruction gratuitously or for such fees as he may himself collect, Percy Adams Hutchison, Ph.D., was authorized to give in the first half-year a course of lectures on Readings in German Philosophy; and James Carleton Bell, Ph.D., in the second half-year, a course of lectures on Abnormal Psychology.

Enrolments in the Various Departments of Study.

On page 30 of the President's Report for the year 1904–05 is a table showing the number of enrolments in each department of study under the Faculty of Arts and Sciences. I reprint that table, with some changes, adding corresponding figures for 1905–06, that the enrolments in the two years may be compared: —

ENROLMENTS IN COURSES.

1904–05.			
	Half	Whole	Total
Semitic	21	77	87.5
Egyptology		38	38.
Indic Philology	17		8.5
Classics	351	544	719.5
English	1212	957	1568.
Public Speaking	102	35	86.
German	80	888	928.
Scandinavian		6	6.
Romance Lang.	105	974	1026.5
Comp. Literature		14	14.
Celtic	2	1	2.
Slavic	65	10	42.5
History	592	847	1143.
Government	39	631	650.5
Economics	909	800	1254.5
Hist. of Religions	54	35	62.
Philosophy	245	522	644.5
Education	44	60	82.
Fine Arts		227	227.
Architecture	80	218	258.
Land. Architecture	8	53	57.
Music	11	195	200.5
Mathematics	180	262	352.
Astronomy	150	5	80.
Physics	63	403	434.5
Chemistry	285	588	730.5
Engineering	1470	676	1411.
Forestry	39	16	35.5
Botany	313	5	161.5
Zoölogy	277	44	182.5
Geology	464	72	304.
Mineralogy	10	44	49.
Mining	246	34	157.
Anthropology	46	233	256.
Hygiene		139	139.
	7480	9653	13393.0

1905–06.			
	Half	Whole	Total
Semitic	20	64	74.
Indic Philology	10		5.
Classics	238	459	578.
Comp. Philology	11		5.5
English	1326	977	1640.
Public Speaking	111	57	112.5
German	80	816	856.
Scandinavian		12	12.
Netherlandish	14		7.
Romance Lang.	67	935	968.5
Comp. Literature		19	19.
Celtic	6		3.
Slavic	63	5	36.5
History	548	761	1035.
Government	72	710	746.
Economics	717	863	1221.5
Hist. of Religions	42	35	56.
Philosophy	99	486	535.5
Social Ethics	248	3	127.
Education	78	42	81.
Fine Arts	1	249	249.5
Architecture	56	212	240.
Land. Architec.		73	73.
Music	18	152	161.
Mathematics	205	246	348.5
Astronomy	194	2	99.
Physics	86	341	384.
Chemistry	304	579	731.
Engineering	1334	655	1322.
Forestry	56	19	47.
Botany	191	10	105.5
Zoölogy	211	35	140.5
Geology	372	46	232.
Mineralogy	2	49	50.
Mining	211	29	134.5
Anthropology	31	151	166.5
Hygiene		153	153.
	7022	9245	12756.0

I print also the number of enrolments in every course containing more than a hundred students, together with the corresponding figures in the preceding years. In the 1904–05 column the words "not given" do not indicate that the courses were newly established in 1905–06. In English Literature, for example, certain half-courses are regularly given every second year.

Course	No. of students in 1905–06.	No. of Students in 1904–05.
Latin *B*	125	136
Latin 10	115	Not given
English *A*	504	563
English 31	175	211
English 28	104	110
English 2	112	120
English 42*b*	102	Not given
English 15[2]	129	Not given
English 8*a*	160	Not given
English 8*b*	127	99
English 33	131	Not given
German *A*	243	289
French *A*	119	144
French 2*c*	165	196
French 2*a*	104	107
History 1*a*	331	380
History 12*a*	102	74
History 16*a*	141	179
History 16*b*	125	159
History 13	108	139
Government 1	384	431
Government 16	116	Not given
Economics 1	470	438
Economics 7[2]	137	Econ. 7*b* 45
Economics 5[1]	138	139
Economics 8*b*	105	82
Economics 2[1]	150	182
Philosophy 1*a*	226	215
Social Ethics 1[2]	165	Phil. 5 122
Astronomy 1	166	130
Physics *C*	180	198
Chemistry 1	311	332
Engineering 1*a*	111	121
Engineering 1*b*	153	161
Engineering 1*d*	127	127
Engineering 3*a*	148	145
Engineering 4*a*	103	107
Engineering 5*b*	104	125
Engineering 11*a*	103	119
Botany 1	147	219
Zoölogy 1	119	184
Elementary Anatomy and Physiology 1 (Personal Hygiene)	153	139

Economics 1 continues to be the largest elective course, with 86 more students than Government 1. The failure of Mathematics to appear in the list is misleading. Engineering 1*a* is Algebra; Engineering 1*b* is Trigonometry; Engineering 1*d* is Analytic Geometry. With many students these courses, though elective in the sense that they are part of an elected general programme (in Engineering), are prescribed in that programme. English *A*, English 31, German *A*, and French *A* are prescribed for nearly all the students who take them.

Anthropology 1, which had risen from 49 in 1903–04 to 159 in 1904–05, dropped to 62 in 1905–06. These changes in the election of a new and therefore somewhat unstable subject are significant. An elementary course in a new subject is likely to draw not only those students to whom the subject is of serious interest, but those other students who are looking for a not too strenuous elective home. The presence of such persons in large numbers reacts on the professor, who proceeds to make the course harder with a view to driving them out. Semitic 12, the History of Israel, beginning with 19 students in 1889-90, rose to 128 in 1896–97, and fell to 27 in 1905–06. History of Religions 2 began with 4 students in 1901–02, rose to 89 students in 1904–05, fell in 1905–06 to 73, and this year has fallen to 36.

Owing to the absence of Assistant Professor Lythgoe, no instruction in Egyptology was offered in 1905–06. Assistant Professor Lythgoe has now resigned, and has connected himself with the Metropolitan Art Museum of New York.

Summer Courses of Instruction in 1906.

The following courses (fifty-nine as compared with seventy-one in 1905) were given, under the direction of the Faculty, in the summer of 1906. The abbreviations, with the addition of S.S. for "member of the Summer School," are the same as those in the preceding list. A hand ☞ points to each course that may be counted toward a degree: —

Greek.

Asst. Professor GULICK. — Greek for Beginners. 5 times a week, for 6 weeks.
1 R., 8 S.S. Total 9.

Classical Archaeology.

☞ **Dr. O. S. TONKS** (Princeton Univ.). — History of Ancient Art. 5 times a week, for 6 weeks. 1 R., 3 Ju., 5 So., 10 Fr., 4 Sc., 9 S. S. Total 32.

Mr. F. S. DARROW. — Greek Vase Painting. 5 times a week, for 6 weeks.
1 R., 1 Gr., 1 S. S. Total 3.

Latin.

Asst. Professor Rand. — General Course for Teachers. 5 times a week, for 6 weeks. 15 S. S. Total 15.

☞ Asst. Professor Rand. — The Life and Works of Ovid. 5 times a week, for 6 weeks. 1 R., 1 Fr., 2 S. S. Total 4.

English.

A. Dr. C. N. Greenough. — English Composition (elementary course). 5 times a week, for 6 weeks. 1 R., 41 S. S. Total 42.

B. Mr. W. R. Castle, Jr. — English Composition (advanced course). 5 times a week, for 6 weeks. 12 S. S. Total 12.

C. Mr. R. P. Utter. — English Composition (second advanced course). 5 times a week, for 6 weeks. 8 S. S. Total 8.

Professor H. B. Huntington (Brown Univ.). — College Admission Requirements in English. 5 times a week, for 6 weeks. 60 S. S. Total 60.

☞ Dr. H. de W. Fuller. — Anglo-Saxon. Anglo-Saxon Reader and Grammar. 5 times a week, for 6 weeks. 1 R., 1 So., 1 Fr., 7 S. S. Total 10.

Dr. H. de W. Fuller. — Shakspere. 5 times a week, for 6 weeks. 9 S. S. Total 9.

Professor F. E. Farley (Simmons College). — English Literature of the Eighteenth Century. 5 times a week, for 6 weeks. 3 S. S. Total 3.

Mr. W. R. Castle, Jr. — English Literature of the Nineteenth Century, from the publication of the Lyrical Ballads to the death of Tennyson. 5 times a week, for 6 weeks. 19 S. S. Total 19.

Mr. Copeland. — English and American Biography. 5 times a week, for 6 weeks. 10 S. S. Total 10.

Dr. C. N. Greenough. — Literary History of America. 5 times a week, for 6 weeks. 9 S. S. Total 9.

Public Speaking, Platform Reading, Voice Training.

Mr. Willard. — Development of the Voice. 5 times a week, for 6 weeks. 1 Fr., 12 S. S. Total 13.

Mr. Hills. — Reading and Oral Discussion. 5 times a week, for 6 weeks. 4 S. S. Total 4.

Mr. Hills. — Platform Speaking. 5 times a week, for 6 weeks. 1 Fr., 7 S. S. Total 8.

German.

☞ Mr. Grossmann. — Composition and Conversation; Methods of Teaching German. 5 times a week, for 6 weeks. 1 R., 1 Ju., 2 So., 1 Sc., 1 Gr., 18 S. S. Total 24.

French.

Mr. W. B. Snow. — Intermediate French Course for Teachers. 5 times a week, for 6 weeks. 2 Gr., 15 S. S. Total 17.

Spanish.

Asst. Professor Ford.—Introductory Course. 5 times a week, for 6 weeks.
4 S. S. Total 4.

History and Government.

☞ Professor W. S. Ferguson (Univ. of California). — Greek History. 5 times a week, for 6 weeks. 7 S. S. Total 7.

☞ Professor S. B. Fay (Dartmouth College). — Modern European History. 5 times a week, for 6 weeks. 8 S. S. Total 8.

☞ Professor W. MacDonald (Brown Univ.). — English History. 5 times a week, for 6 weeks. 1 R., 8 S. S. Total 9.

☞ Professor W. MacDonald (Brown Univ.). — American History. 5 times a week, for 6 weeks. 1 Ju., 17 S. S. Total 18.

Economics.

☞ Professor Carver. — Principles of Sociology. 5 times a week, for 6 weeks.
2 R., 1 Se., 8 Ju., 6 So., 3 Fr., 1 Sc., 1 Gr., 2 S. S. Total 24.

☞ Professor Carver. — Methods of Social Reform. 5 times a week, for 6 weeks. 6 Ju., 6 So., 2 Fr., 1 Sc., 3 S. S. Total 18.

Philosophy.

☞ Professor Royce. — General Introduction to Philosophy. 5 times a week, for 6 weeks. 1 So., 22 S. S. Total 23.

Professor Royce. — Introduction to Ethics. 5 times a week, for 6 weeks.
1 So., 22 S. S. Total 23.

Psychology.

☞ Dr. Yerkes. — Descriptive Psychology. 5 times a week, for 6 weeks.
8 S. S. Total 8.

Dr. Yerkes. — Experimental Psychology. 5 times a week, for 6 weeks.
2 S. S. Total 2.

Dr. Yerkes. — Comparative Psychology. 5 times a week, for 6 weeks.
2 S. S. Total 2.

Education.

☞ S 1. Asst. Professor A. O. Norton.— The History of Education since the Twelfth Century. 5 times a week, for 6 weeks.
1 Se., 12 S. S. Total 13.

☞ S 2. Asst. Professor A. O. Norton. — General Principles of Education, and Courses of Study. 5 times a week, for 6 weeks.
1 Se., 24 S. S. Total 25.

Theory of Pure Design.

☞ Dr. Ross and Asst. Professor Mowll, assisted by Mr. E. O. Parker. — Eighteen lectures and daily conferences. Eighteen hours a week of experimental practice, for 6 weeks. 1 Fr., 1 Sc., 44 S. S. Total 46.

Landscape Painting.

☞ Messrs. A. Pope and M. Mower. — General Consideration of Landscape. 5 times a week, for 6 weeks. 1 R., 1 So., 3 Fr., 8 S. S. Total 13.

Architecture.

Mr. Swan. — Architectural Drawing. Theory and Practice. 5 times a week, for 6 weeks. 1 Ju., 1 Sc., 3 S. S. Total 5.

☞ Professor H. L. Warren. — History of European Architecture to about the year 1000. 5 times a week, for 6 weeks.
2 R., 3 Ju., 6 So., 4 Fr., 1 Sc., 5 S. S. Total 21.

☞ Professor H. L. Warren. — History of European Architecture from 1000 A.D. to close of Renaissance. 5 times a week, for 6 weeks.
4 S. S. Total 4.

Music.

☞ Mr. Heilman. — Harmony and Simple Counterpoint. 5 times a week, for 6 weeks. 1 Fr., 10 S. S. Total 11.

☞ Asst. Professor Spalding. — Musical Analysis. 5 times a week, for 6 weeks. 1 Fr., 5 S. S. Total 6.

Mathematics.

☞ SD. Dr. H. N. Davis. — Advanced Algebra. 5 times a week, for 6 weeks.
1 Ju., 3 So., 1 Sc., 8 S. S. Total 13.

☞ SE. Mr. A. B. Frizell. — Solid Geometry. 5 times a week, for 6 weeks.
5 So., 1 Sc., 3 S. S. Total 9.

☞ SA. Asst. Professor Love. — Plane Trigonometry. 5 times a week, for 6 weeks. 1 Se., 2 Ju., 6 So., 2 Fr., 2 Sc., 6 S. S. Total 19.

☞ SB. Mr. A. B. Frizell. — Plane Analytic Geometry. 5 times a week, for 6 weeks. 2 Sc., 6 S. S. Total 8.

S 2. Professor Osgood. — Differential and Integral Calculus. 5 times a week, for 6 weeks. 3 Sc., 9 S. S. Total 12.

Astronomy.

☞ Professor Willson and Mr. W. C. Brenke. — Elementary Course in Practical Astronomy. 5 times a week, for 6 weeks.
1 R., 1 Ju., 2 So., 1 Fr., 1 S. S. Total 6.

Physics.

B. Professor W. E. McElfresh (Williams College) and Mr. L. D. Hill. — Elementary Experimental Physics. 5 times a week, for 6 weeks.
1 So., 22 S. S. Total 23.

☞ *C*. Dr. H. W. Morse. — Advanced Course in Experimental Physics. 5 times a week, for 6 weeks. 9 S. S. Total 9.

Chemistry.

Asst. Professor BAXTER and Mr. A. C. BOYLSTON. — Elementary Chemistry. 5 times a week, for 6 weeks. 14 S. S. Total 14.

Asst. Professor BAXTER. — Qualitative Analysis. 5 times a week, for 6 weeks. 1 Ju., 1 Gr., 6 S. S. Total 8.

Dr. A. B. LAMB. — Physical Chemistry. 5 times a week, for 6 weeks. 3 S. S. Total 3.

☞ Asst. Professor BAXTER. — Chemical Research. 5 times a week, for 6 weeks. 3 Gr., 1 S. S. Total 4.

Botany.

☞ S1. Dr. R. G. LEAVITT, and Messrs. J. G. HALL and L. J. SPALDING. — Introductory Course: The Structure, Physiology, and Œcology of Flowering Plants. 5 times a week, for 6 weeks. 2 R., 1 Ju., 3 Fr., 11 S. S. Total 17.

☞ S2. Dr. M. A. CHRYSLER. — Advanced Course: Morphology, Histology and Œcology of Flowering Plants. 5 times a week, for 6 weeks. 1 So., 3 S. S. Total 4.

Geology.

☞ S1. Professor DAVIS, Asst. Professors WOODWORTH and JAGGAR, and Mr. J. W. EGGLESTON. — Elementary course. Lectures, laboratory, and field work. 5 times a week, for 6 weeks. 1 Ju., 2 So., 2 Sc., 5 S. S. Total 10.

☞ S2. Asst. Professors WOODWORTH and JAGGAR. — General Field Geology. 1 Se., 1 Sc. Total 2.

Geography.

☞ Mr. G. R. MANSFIELD. — Lectures, laboratory, and field work. 5 times a week, for 6 weeks. 1 R., 10 S. S. Total 11.

Physical Education.

Dr. SARGENT and assistants. — Elementary and advanced courses in theory. 5 weeks. 62 S. S. Total 62.

Dr. SARGENT and assistants. — Elementary and advanced courses in practice. 5 weeks. 120 S. S. Total 120.

The following courses were given in the summer as part of the regular instruction of the Lawrence Scientific School. Some of them were given at Squam Lake, New Hampshire: —

Engineering.

4*a*. Asst. Professor HUGHES. — Plane Surveying. Field work. Daily, 6 weeks. 18 Ju., 38 So., 3 Fr., 4 Sp., 40 Sc., 7 S. S. Total 110.

4*d*. Asst. Professor HUGHES. — Railroad Surveying. Daily, 3 weeks. 2 Se., 11 Ju., 28 So., 3 Fr., 3 Sp., 35 Sc., 4 S. S. Total 86.

4*c*. Asst. Professor HUGHES. — Geodetic Surveying. Daily, 2 weeks. 10 Ju., 28 So., 3 Fr., 3 Sp., 32 Sc., 3 S. S. Total 79.

10*a*. Mr. S. E. Whiting, assisted by Mr. E. R. Markham. — Chipping, filing, and fitting. 90 hours. 1 Se., 1 So., 1 Fr., 30 Sc., 1 S. S. Total 34.

10*b*. Mr. S. E. Whiting, assisted by Mr. E. R. Markham. — Blacksmithing. 90 hours. 1 Se., 1 So., 1 Fr., 30 Sc., 1 S. S. Total 34.

10*c*. Mr. S. E. Whiting, assisted by Mr. E. R. Markham. — Pattern Making, etc. 90 hours. 1 Se., 1 So., 1 Fr., 27 Sc., 1 S. S. Total 31.

10*e*. Mr. S. E. Whiting, assisted by Mr. E. R. Markham. — Machine-Shop Practice. 90 hours. 1 Se., 1 So., 28 Sc., 2 S. S. Total 32.

Instruction provided for 1906–07.

The interchange of Professors with Germany brings Professor Kühnemann, who lectures on Contemporary German Drama and on "Die Blütezeit der deutschen Literatur im achtzehnten Jahrhundert."

In the absence of Professor Lyon, Semitic 12 (History of Israel) is conducted by Professor G. F. Moore. The Department of English is strengthened by the return of Dr. Neilson as full professor, and by the addition — in the second half-year — of Professor Bliss Perry. In the Department of German, Professor von Jagemann resumes work after a long sickness. The most striking addition to the elective pamphlet results from the transference of Professor Schofield to Comparative Literature, and the reorganization by him of work in that field. The offering in Comparative Literature has hitherto appeared meagre, because many courses in which the study of literature is comparative have been classified in other Departments, and there has been no acknowledged Department of Comparative Literature. The new announcement allies to the new Department many of the strongest teachers in the University. It shows, also, the belief of the Faculty that Comparative Literature may be profitably studied by undergraduates; for it announces Professor Wendell's English 46 (now entitled European Literature, General Survey) under the name of Comparative Literature 1, among Courses Primarily for Undergraduates. This course has been called "the 'History 1'" of Comparative Literature. In Philosophy, Assistant Professor Santayana returns; in Botany, Professor Thaxter. As a whole, the elective offering of 1906–07 is probably stronger than that of any other year in the history of the University.

Harvard University and the New England Conservatory of Music.

In October, the Faculty sanctioned a "reciprocal scheme of work" in Music and allied courses for students at Harvard University and at the New England Conservatory of Music. As a result, advanced students of Music in the University have access to certain courses of great value at the Conservatory, and count their work in those courses towards a Harvard degree. In return, selected pupils at the Conservatory have access to certain courses (courses in English Composition, for example) at the University.

QUESTION FROM THE BOARD OF OVERSEERS REGARDING THE VALUE OF THE SMALLER ELECTIVE COURSES.

In considering the deficits of recent years, the Board of Overseers raised the question whether some of the smaller elective courses are not too costly to be maintained. In a communication to the Faculty, the Overseers suggested a distinction between "University courses" and "College courses." By "University courses" they meant advanced courses designed chiefly for graduates, and usually unsuitable for large numbers of students. Such courses seemed to them necessary, or at least defensible. The courses they challenged were those designed for the less mature, yet chosen by few; for they doubted whether the instructors in such courses were economically employed.

There are obvious dangers in regarding the number of students in a course as a criterion of its value. Nothing would be much more unfortunate than the requirement that an instructor shall make a course popular, and there is grave doubt whether our most dangerous courses are not our biggest ones. Yet if expenses are constantly exceeding receipts, it is simply good business to decrease the one, or to increase the other, and to test carefully all expenditures. A small course occupying a large fraction of an instructor's time should usually be a course in a subject which a university cannot neglect: it may be work for a few advanced students of whom one or two are of marked promise; it may cover a period in history or in literature which, though comparatively unimportant, cannot be overlooked in an elective curriculum. Now and then, also, a small course is an instructor's best means of keeping up and advancing his scholarship. Firmly believing that every course offered in Harvard University is of value, I believe more firmly that the number of courses should not be maintained against thoroughness in individual courses. Furthermore a certain amount of rather elementary teaching by the stronger men in the Faculty does untold good to the younger students. With a diminished elective offering would come a partial compensation from a reduction in the necessary number of assistants and minor instructors, and from a transference of the teachers of the abandoned small courses to fields in which their influence would be wider.

THE NEW COMMITTEE ON ADMISSION.

In my last Report, I referred to a suggestion of the Secretary of the Faculty of Arts and Sciences, Mr. John Goddard Hart, that the Committee on Admission Examinations should end its work with the reading of the examination books, and that a new Committee on Admission should be created which should give the case of every candidate what personal attention a just and sympathetic consideration of it might require. In December, 1905, the Faculty, on the motion of Mr. Hart, voted "That a single committee be appointed to exercise the function of admitting students to courses of instruction under the Faculty of Arts and Sciences." In January, the President appointed, to constitute this Committee, Mr. J. G. Hart (Chairman), Professors Sabine and Haskins, Mr. J. D. Greene, and Mr. E. H. Wells. Next to the reorganization of the Lawrence Scientific School, the creation of this Committee was the most important act of the Faculty in the academic year. Formerly one committee dealt with candidates for admission to Harvard College by examination, another with candidates for transference from other colleges, another with candidates for admission as Special Students, another with candidates for admission to the Lawrence Scientific School by examination, and still another with candidates for transference to the Lawrence Scientific School from other scientific schools. A youth rejected by one committee tried another and then another, and not infrequently profited — or at least gained a foothold in the University — by so doing. The new Committee "places" the candidates according to their attainments, takes infinite pains in doubtful cases, and strives at once to avoid the loose and accidental and to escape unintelligent entanglement in its own rules. Almost immediately after the Committee was organized, it proposed and carried in the Faculty two motions: (1) That a school shall be free to present a boy at any regular examination period for such examinations as he is prepared to take; (2) That a candidate who has received a certificate of preparation from his school or tutor shall receive credit for any subject or subjects he passes.

The circular letters of the Committee to schools were greeted with enthusiasm. A hundred and four schools no one of which had ever been represented in the Freshman Class at Harvard College communicated with Mr. Hart about Harvard admission examinations. Many of these schools are high schools in towns or in small cities.

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DEGREE WITH DISTINCTION IN HISTORY AND LITERATURE.

In April, the Faculty on the motion of Professor Lowell voted:

(*a*) "That the degree of A.B. be granted with distinction in History and Literature on the recommendation of a committee to be appointed for the purpose by the President;

(*b*) "That the committee report for the approval of the Faculty regulations for the granting of that distinction which shall comprise considerable reading of classical works in English and in other languages, apart from the courses taken in College."

The President appointed as the committee in charge of candidates for this new degree with distinction, Professor Lowell (Chairman), Professors Wendell, Haskins, and Schofield, Dr. Merriman and Dr. Greenough. I print an outline of the scheme of work advised by the Committee: —

Proposed Plan for the Degree with Distinction in History and Literature.

1. As early as possible in his College career, the candidate must present, for approval by the Committee, a plan of study which shall comprise at least six courses, selected from those offered in History and in Literature, — taking both terms in their most comprehensive sense, — and usually not including courses regularly open to Freshmen. These courses should be so selected as to come under some general scheme of study of the history and the literature either of a nation or of a period: for example, —

The History and Literature (*a*) of Greece, (*b*) of Rome, (*c*) of England, (*d*) of France, etc.

The History and Literature (*e*) of the Middle Ages, (*f*) of the Renaissance, (*g*) of the Eighteenth Century, (*h*) of the Nineteenth Century, etc.

Under such schemes as (*c*), (*g*), and (*h*), it is evident that study of the history and literature of America would generally be included.

The candidate will normally be expected to divide his work about equally between courses in History and courses in Literature; but will ordinarily include, either in courses taken or in outside reading, the history of Philosophy and of the Fine Arts in the country or the period selected for his general field of study.

2. To complete his knowledge of the country or the period chosen, the candidate will pursue a course of general reading both in the principal authors of the country or the period in question and in the works of standard authorities concerning these matters. This

general reading, which may conveniently be done during summer vacations, must in every case be approved and directed by the Committee.

3. Not later than April 1 of his final year of preparation, the candidate must present to the Committee a thesis, the subject of which has been approved, on some special topic within his general field of study. At some subsequent time appointed by the Committee, the candidate must present himself before them for general examination — either written, or oral, or both — concerning his whole field of study.

4. A candidate who has satisfied the Committee of his proficiency will be recommended by them for the Degree with Distinction in History and Literature, and may be excused from the final examinations in his Senior year in the courses offered for the Degree with Distinction.

Undergraduates, slow as they have been to accept the requirements of the Faculty for Honors in various Departments, responded quickly to the new proposition. "On October 29th," says Professor Wendell, the acting chairman of the Committee, "when I made a report to the Committee, ninety-nine men in all had applied to me. Of these, forty-three, among them four Seniors, had decided to study for distinction in History and Literature; thirty-three had preferred by the advice of the Committee to consider studying for distinction in some regular Department; eighteen had withdrawn altogether; and five had not been heard from." It will be observed that the new plan offers a reward for the best kind of general reading, and gives an opportunity of distinction to many students who, though they may be using their college years wisely for intellectual development, are shut out from other forms of distinction by somewhat technical requirements. The immediate response of the students is a fresh indication of their willingness to work in what appeals to their ambition.

CHANGES IN THE ANNOUNCEMENT OF REQUIREMENTS FOR THE DEGREE OF A M.

In June, the Faculty voted, on the motion of Professor Hanus, to make certain changes in the announcement of the requirements for the degree of A.M. In the University Catalogue for 1905-06 occurs this sentence: "The programme of study for the degree of Master of Arts must form a consistent plan of work pursued with some definite aim, though it need not lie wholly in one Department or field;

this work may be done either in, or in connection with, the regular courses of instruction, or independently of them." As changed by vote of the Faculty, the sentence reads, "The programme of study for the degree of Master of Arts must form a consistent plan of work pursued with some definite aim, whether it lies wholly in a single Department or field of study or in more than one; this work may be done either in, or in connection with, the regular courses of instruction, or independently of them." The change in the sentence, though apparently slight, expresses hospitality towards candidates for the Master's degree whose work is not highly specialized, provided their purpose is definite. A superintendent of schools, for example, may spend a year in the Graduate School of Arts and Sciences, with a definite professional intent which necessitates work in several Departments, and may thoroughly deserve, as evidence of that work, the degree of A.M.

FRIDAY AFTERNOON AND SATURDAY COURSES FOR TEACHERS.

At the very end of the year, the Faculty took steps toward the establishment of Friday Afternoon and Saturday Courses for Teachers, whether men or women. A preliminary announcement was authorized, and several of the courses are now under way. Though it is too early to judge even the immediate success of this undertaking, indications are encouraging.

THE GRADUATE SCHOOL OF APPLIED SCIENCE AND THE DEGREE OF S.B. IN HARVARD COLLEGE.

The most important enterprise of the year was the reorganization of work which has hitherto been done in the Lawrence Scientific School. With the immediate prospect of a Graduate School of Applied Science, it became necessary to consider the relation of the new school to the old, and of both the new and the old to Harvard College. The professional four-year programmes for the degree of S.B. in the Lawrence Scientific School are continued; the students in General Science are transferred to Harvard College, where they belong; Harvard College now gives the degree of S.B., not necessarily for specialized work, as well as the degree of A.B.; and holders of the A.B. as well as of the S.B. will be encouraged to study Applied Science in the new school. This school is likely to receive pupils with wider preliminary training than those of many technical schools in America, and thus to graduate larger-minded men.

The future of the degree of S.B. in Harvard College is problematic. Candidates for this degree have equal elective opportunity with candidates for the degree of A.B., so far as their training in the secondary school permits; and with the strengthening of the admission requirements for such persons, the fundamental difference between A.B. and S.B. in Harvard College may be nothing more than the difference between the Elementary Latin of the admission examinations and some modern substitute therefor. No man can tell how long two degrees so similar may be separately maintained.

DEATH OF PROFESSORS.

Dean Shaler, who had done more than any other man to build up the Lawrence Scientific School and to insure the establishment of the Graduate School of Applied Science, died before his plans could be fulfilled. His death followed closely that of Professor J. M. Peirce, the first Dean of the School now known as the Graduate School of Arts and Sciences, and was itself followed at no long interval by the death of Professor Paine, who had retired at the end of the preceding year.

ADMINISTRATIVE WORK OF THE FACULTY.

In my last Report, I expressed the belief that the chief need of the Faculty was a large simplicity. Toward such a simplicity it is slowly moving. It is reducing the membership of committees when reduction is practicable, and it seems inclined to give committees and chairmen more power. The importance of such a policy is the greater because the fresh enterprises in which the Faculty is constantly engaged and the increasing personal attention to individual students (for example, to candidates for the degree of A.M.) tend to make heavier the administrative work of individual teachers. This work may be the best work a teacher does, may give him his strongest hold on the young men and a warm place in their memories; may even add to his efficiency in a limited amount of teaching, through his clearer vision of the minds and characters of the taught: yet it must reduce his teaching in quantity, and may, by exhausting him, reduce it in quality; and it is an inveterate foe to scholarship. For these reasons it would seem wise that the real scholars in the Faculty should undertake only so much administrative work as they may need to keep them human.

L. B. R. BRIGGS, *Dean*.

THE COLLEGE.

To the President of the University: —

Sir, — I have the honor to submit to you a report on the condition of Harvard College for the academic year 1905–06.

The total number of students at the time when the lists were compiled for the Catalogue of 1905–06 was eighteen hundred and ninety-nine, divided as follows: —

Seniors	242
Juniors	417
Sophomores	601
Freshmen	488
Total number of Undergraduates	1748
Special Students	151
Total	1899

These figures, compared with those for the corresponding time in 1904–05, show a net loss of one hundred and ten, divided as follows: —

	Gain.	Loss.
Seniors		23
Juniors		25
Sophomores		9
Freshmen		57
Special Students	4	..
		114
		4
Net loss		110

Last year I called attention to the almost steady decrease for the preceding five years in the number of students registered in the Senior Class. This decrease still continues: —

	1900–01.	1901–02.	1902–03.	1903–04.	1904–05.	1905–06.
In College	1992	1983	2109	2073	2009	1899
Seniors	388	346	381	325	265	242

During the year the following students died: —

Timothy Thomas Crowley, '07 (not in College in 1905–06), Sept. 1, 1906.
Roger Ferguson Conant, '09, . . . December 26, 1905.
Everett Newell Smith, '09, ... March 15, 1906.

Three hundred and eighty-three students — twenty-two in March and three hundred and sixty-one in June — were recommended by the Faculty of Arts and Sciences for the degree of Bachelor of Arts in course. Of these, two hundred and eleven were registered in the Senior Class. The registration of the others is indicated in the next table: —

On leave of absence all the year	31
On leave of absence first half-year	0
On leave of absence second half-year	17
Graduate Students	28
Registered in Law School	20
Registered in Medical School	9
Registered in Scientific School	9
Special Students	1
Registered in Sophomore Class	14
Registered in Junior Class	18
	147
To be designated "as of 1907" in the *Quinquennial*	25
	172

The next tables show the losses and gains in the three younger classes between November, 1905, and November, 1906. It is to be observed that the great decrease in the net loss in these three classes (two hundred and two less than the corresponding loss last year), as well as the increase in the number of Special Students, and the increased registration of students in regular standing in Harvard College for the academic year 1906–07 (to be shown in the next annual report of the Dean) are due in large part to the transfer to Harvard College of students formerly registered in the Scientific School, to the registration in Harvard College of those incoming candidates for the degree of Bachelor of Science who formerly would have entered the Scientific School, and to the placing of all Special Students in charge of Harvard College: —

	November, 1905.		Loss.	Gain.	November, 1906.	
Class of 1907 . .	(Juniors)	421	169	80	(Seniors)	332
Class of 1908 . .	(Sophomores)	599	257	74	(Juniors)	416
Class of 1909 . .	(Freshmen)	488	105	252	(Sophomores)	635
			531	406		

Net loss in the three classes between Nov., 1905, and Nov., 1906, 125 (202 less than in 1905).

(The discrepancy between the numbers of students in the classes as given in this table and the numbers as given in the Catalogues of the corresponding years is caused by students entering or withdrawing after the Catalogue goes to press.)

	Class of 1907.	Class of 1908.	Class of 1909.	Total for three classes.
LOSSES.				
Left College before the end of the year	7	24	30	61
Left College at the end of the year	143	30	11	184
Were "dropped" and left College	5	32	12	49
Entered a lower class	10	122	37	169
Entered a higher class	4	49	15	68
Total loss	169	257	105	531
GAINS.				
From higher classes	2	15	124	141
From lower classes	47	15	..	62
Newly admitted	31	44	128	203
Total gain	80	74	252	406
Net loss	89	183	..	125
Net gain	..	..	147	..

The next table shows the losses and gains in the number of Special Students since December, 1905: —

In attendance, December, 1905	151
Left College before the end of the year	28
Left College at the end of the year	51
Entered a College class	21
Total loss	100
Reëntered College as Special Students in 1906	51
Newly admitted	213
Total	264
Net gain	113

The Freshman Class in 1906–07 numbers six hundred and five, an increase of one hundred and seventeen over the class of the preceding year: —

Admitted by examination in 1906	492
Admitted by examination before 1906	60
From a higher class	37
" the Special Students	2
" the Lawrence Scientific School	14
Total	605

The past year is notable for the inauguration of important and far-reaching changes in methods of administration as well as for the trial of other important changes determined upon in preceding years.

The first of the changes to which I allude is the appointment of a Committee on Admission, consisting of five members, which now performs in a far more satisfactory and effective manner than has ever been done before work which heretofore has engaged no less than five committees, involving a total membership of forty-eight. To this Committee has been entrusted all questions of admission to undergraduate standing: the burden upon each member of the Committee is heavy, but the results warrant the devotion. In reality much time is saved not only for the members of the former committees but for many of the candidates for admission. A candidate, if he is to be admitted at all, is admitted at once to the place where he belongs, and the University is no longer in the undignified and embarrassing position of having candidates, supported always by voluminous testimonials to their virtues and accomplishments and not infrequently by half-reluctant teachers and wholly ardent and protesting parents, attack first one and then another of its committees. He has been indeed a poor-spirited youth who could not by sufficient beating at all five of the doors at last secure admission at one. Hereafter administrative officers will no longer see — at least, under the jurisdiction of the Faculty of Arts and Sciences — in the class room and on the athletic fields, the smiling faces of youths who have been firmly told to return to the preparatory schools whence they came.

The important alterations in the methods of admission to Harvard College, the first of which was adopted by the Faculty on recommendation of the Committee on Admission Examinations, are discussed in the report of the Chairman of the Committee on Admission; and there will be found various tables corresponding in part to the tables which heretofore have appeared in this report. These new tables, however, are not comparable with the old, since the bases on which they are computed cannot, on account of the changes in the methods of admission, be the same.

The second and most important change, — one of the most important changes in the recent history of Harvard College, — is the establishment of the degree of Bachelor of Science without distinction of field, side by side with that of Bachelor of Arts. For the present, as the terms for the new degree have been announced, the sole difference between the two degrees is in the requirements for admission to College. In minor details the requirements for admission to candidacy for the degree of Bachelor of Science differ from those for admission to candidacy for the degree of Bachelor of Arts by the requirement for the former of both Elementary French and Elementary German (or, as a substitute for either, Advanced German or Advanced French), and of solid geometry; by a wider election in science (astronomy, counted for the A. B. candidate as an advanced elective subject only, and zoölogy and botany, not counted at all, may be used to satisfy the requirement in prescribed science); and by a larger list of elective subjects (civil government, economics, drawing and shopwork of various kinds) from which to secure the remaining number of points required. The great point of difference is that the passing of an examination in Elementary Latin or Elementary Greek is for the candidate for the S.B. elective. This difference is in the work done before entrance to College: once in, two students may pursue the same course, and emerge, one a Bachelor of Arts, the other a Bachelor of Science, the sole difference in their training being that for one was prescribed before he entered a small knowledge of either Latin or Greek (in practice this is really Latin), for the other a knowledge of solid geometry, both of which subjects they are not unlikely to have forgotten.

One great and beneficent result of the establishment of this new kind of S.B. is clear: Harvard College has been brought into close relation with the public schools of the United States; it has been made accessible practically to all boys trained in them. Any graduate of a good high school, it matters not whether it be English or classical, or whether he has or has not "taken the college course," may now, as a regular member of the College, secure all its advantages, including recognition as an alumnus. Whatever may be one's opinion in regard to the value of a classical training, one cannot but rejoice at this liberal extension of the service of the College.

What will be the future of the new degree time alone can tell. Under the present terms the only science in it (as Professor Wendell has said) may be the letter "S"; and, although there is precedent for this, objection to such a use may be justly urged. Theoretically, those who argue that different kinds of training should be implied by the two degrees can make a case of some strength; but in practice, especially as the degree of Bachelor of Arts has been administered at Harvard, to discriminate between the two is a hopeless task. The tendency of modern study, also, seems against such a discrimination. To-day, language, literature, history, economics, all of "the humanities," are subjects of "scientific investigation": it is impossible clearly to draw a line between arts and sciences. Furthermore, for nearly twenty years at Harvard College the degree of Bachelor of Arts has stood for training of the most varied sorts, — in many cases, for a course more highly specialized in science than that laid down in any one of the prescribed programmes of the Scientific School. No one of the holders of the degree of Bachelor of Arts to whom I have just referred would for a moment, I believe, consider favorably the exchange of that degree for the new degree of Bachelor of Science. Prediction is uncertain; but if talks with a few students give any indication of the fate of the new degree, it runs for a time, — certainly until it shall have a large body of holders, — a most excellent chance of becoming a "consolation degree" for men who cannot pass the admission examination in Elementary Latin. I have yet to hear the new degree preferred to the degree in Arts.

From a consideration of all the questions involved, it seems pertinent to ask if the time has not come for a more flexible system of admission to candidacy for the degree of Bachelor of Arts, in which the offering of Elementary Latin or Elementary Greek shall not be prescribed. The study of Greek in the schools, if we are to judge from our own examinations, is declining; each year not merely the percentage but the actual number of candidates presenting themselves for examination in this subject is decreasing. Latin, on the other hand, is reported to be one of the two most flourishing and prosperous subjects in secondary schools; it can, therefore, be trusted to hold its own as an elective. Were this change made, the degree of Bachelor of Arts could, with very little, perhaps without any, broadening of its scope, be used as the seal for all regular undergraduate work, and the whole undergraduate body, for official and administrative purposes, be united, as the various parts long ago united themselves for all undergraduate, class, and social purposes, in the College. Thus the Scientific School could be left free for its great task of developing the new School of Applied Science.

The Administrative Board for the year 1905–06 was made up of Professors Willson, Parker, Gardiner, Ward, Gulick; Messrs. Hart and Lyman; the Assistant Dean and the Dean. It numbered six less than did the Board of the preceding year. This reduction, made possible by the amendment, in 1904, of the Statute which up to that time had prescribed for Harvard College alone of all the departments of the University the size of the Administrative Board ("not less than fifteen members"), resulted in a more effective, consistent, and economical dispatch of business. In the preceding Boards, each numbering fifteen or more, there were so many to share responsibility, — it seemed so unnecessary that each member should attend every meeting, — that familiarity with the details of business and individual cases was really left to a few, and justice was sometimes in danger, as well as consistency of action. The smaller Board saved absolutely the time of six members, relieved from service, as well as some of the time of those who still served: regularity in attendance, imposed by the very smallness of the Board, obviated the necessity of the repetition of details and of arguments. For the year 1906–07 a Board of seven, probably the best number, since it secures adequate representation of administrative and advisory officers, has been appointed. The Board held thirty-five meetings.

During the course of the year one student was dismissed for lying; three were suspended, two for handing in as their own written work copied from others, and one for taking an unauthorized vacation; twenty-one on probation had their probation closed, one for indecent and disorderly conduct, two for copying, and eighteen for unsatisfactory records in attendance and studies; nine withdrew under pressure. Of the twenty-seven last enumerated, nine, at some preceding time, had had their connection with the College severed, and at the beginning of a subsequent year been readmitted: of the remaining eighteen, five had been dropped from higher classes. At the end of the year the new provision of the rule concerning probation, that the probation of a student whose final record does not warrant relief from probation, shall be closed, went into effect. Five Juniors, twenty-five Sophomores, and twenty-five Freshmen, who had been put on probation at various times through the year, failed to attain satisfactory records: of these one Junior and seven Sophomores were advised not to seek readmission. The others were encouraged to work during the summer, — either to prepare themselves to remove admission conditions, or to secure employment in business of some sort, — and to apply for readmission in September. Those who presented satisfactory evidence of some sort of vigorous summer work that led the Board to expect that they would do well if given another chance were readmitted. The Board has steadily held to a policy of leniency in readmitting at the beginning of the year students who, having been sent away during the course of the year, could bring a record of good work done elsewhere between the time when they left College and that when they sought readmission. In some cases the results have been gratifying; in far too many, however, they have been unsatisfactory. The return to former associations has brought a return to old habits, and has proved too strong for the good resolutions made at the beginning of the year. Of seventeen students thus readmitted at the beginning of the year 1905–06, one, on advice, decided not to come; nine, falling into old habits, disappeared, either under advice or by the action of the Board, — seven before the end of the year, two at the end.

The appointment of an Assistant Dean has been of the greatest service in strengthening administration. For many years, the mere number of students has made it impossible for the Dean to see personally every student under his jurisdiction. He could talk with those summoned to him because of unsatisfactory records, and those who sought him of their own volition. As two of those who have held the office of Dean have been members of the Department of English they have been able to meet the greater part of the Freshman Class in the prescribed course in English, and thus to discuss matters of administration, but to have a personal interview with each newly admitted student was out of the question; in the twenty-four hours of the day there was not time enough for this and the other work of the office. Now, however, the Assistant Dean, by taking charge of the Freshman Class only, is able to talk individually at the beginning of the year with each member, and by counsel and advice to supplement the work of the advisers in this, in some ways the most important year, when the schoolboy changes to the "college man," and should learn the responsibility of freedom.

In my report of 1904 I called attention to the great number of excuses of sickness presented to the Recorder to account for absences from College engagements. At the end of the year 1904–05 the Faculty amended the regulations, and the question of excuses for sickness was placed where it belonged, — in the hands of the Medical Visitor. "A student who is sick," the new rule reads, "should at once notify the Medical Visitor, who, in case of serious illness, will inform the Recorder." The Recorder marks as excused, in the record-books, all absences which the Medical Visitor informs him should be excused, and notifies the instructors of the students concerned. In 1904–05, when the students in College numbered 2,009, the Recorder's office received 2,765 written excuses of sickness, divided as follows: Seniors, 337; Juniors, 629; Sophomores, 830; Freshmen, 827; Special Students, 142. For the year 1905–06, when the students numbered 1899, the Medical Visitor reports 1146 such cases, divided as follows: Seniors, 122; Juniors, 246; Sophomores, 409; Freshmen, 299; Special Students, 70. The percentage of sickness has decreased in a single year from 137 to 60: this great improvement in the general health of the undergraduates is most gratifying.

The number of students winning a position in the first group of scholarship holders in the year 1906–07 is forty-eight as compared with forty-seven in 1905–06. Of these, forty-one hold stipendiary scholarships, seven hold honorary. In the second group, seventy hold stipendiary, eighty-one honorary. A study of the scholarship lists and the records of the scholarship holders for the last three years suggests the conclusion that the report of the Committee on Improving Instruction has led to an increased strictness in grading. The number of holders of scholarships with stipend in the first group shows no diminution, but the number of holders of honorary scholarships has steadily declined. This would naturally be the case with a severer system of marking. The holder of a scholarship with stipend must win his scholarship, and accordingly he increases his amount of work. The holder of an honorary scholarship, on the other hand, has not this incentive: he works at the old rate. In the second group the number of holders of honorary scholarships exceeds the number of holders of scholarships with stipend, but the standard for admission to this group, determined, of course, by the number of scholarships with stipend to be assigned, has been lowered. For the last two years an average rank of one A and three B's has, for Sophomores and Juniors, won a position in this group. Before that time the average required was two A's and two B's.

In my last report were printed the requirements for the new degree with distinction and the rules governing the "Dean's List." It is gratifying to report that the new plan bears good fruit. In 1906, although short notice of the details of the new plan had been given and the old plan was still in existence, eleven candidates received the degree with distinction under the new plan, six *cum laude*, five *magna cum laude*. During the year only one student abused the privileges of the "Dean's List," and had his name stricken off. One hundred and twenty-two students are now registered at the Dean's office as candidates for the degree. The new plan, by its insistence on unity and its encouragement to wide reading, gives promise of doing away with a defect apparent heretofore in the work of some scholars of high standing whose minute knowledge of certain portions of a field has not atoned for their lack of information concerning great stretches of the same field, and of enabling students to approach more nearly than have many of our scholars heretofore to what Professor Lowell has so well defined as the ideal of the modern Harvard education, — mastery, so far as that may be implied in a degree of Bachelor of Arts, in some one field of learning, and such an understanding of other fields as will enable one to listen intelligently to those who are masters in those fields.

B. S. HURLBUT, *Dean.*

THE LAWRENCE SCIENTIFIC SCHOOL.

To the President of the University: —

Sir, — I have the honor to submit to you the following report on the Lawrence Scientific School for the academic year 1905–06.

The number of students registered in the School during this and the immediately preceding year, and their distribution in classes, as well as in programmes of study, are set forth in the following tables: —

REGISTRATION BY CLASSES.

Class.	1904–05.	1905–06.
Fifth-Year	1	6
Fourth-Year	96	66
Third-Year	67	73
Second-Year	140	134
First-Year	104	91
Specials	137	138
Totals	545	508

SPECIAL STUDENTS.

Number of years in attendance.	1904–05.	1905–06.
One	79	88
Two	33	33
Three	13	10
Four	3	4
Five	..	3
Totals	128	138

DISTRIBUTION OF STUDENTS IN FOUR-YEAR PROGRAMMES.

Programme.	1904–05.	1905–06.
Civil Engineering	66	56
Mechanical Engineering	62	65
Electrical Engineering	80	85
Mining and Metallurgy	66	67
Metallurgical Engineering	1	..
Architecture	44	48
Landscape Architecture	16	17
Forestry	9	15
Chemistry	23	29
Geology	6	8
Biology	11	5
Anatomy and Physiology	28	24
For Teachers of Science	24	23
General Science	109	66
Totals	545	508

It is to be observed that while there was a diminution of thirty-seven in the total registration in the School this loss was almost entirely in the number enrolled in the programme of General Science. In the previous year there was a loss of eighteen, which also was to be accounted for by the loss in the programme of General Science. As Professor Shaler pointed out in his last annual report, this was to be expected in view of the increase in the entrance requirements of the Lawrence Scientific School. The decrease is also coincident with an increased severity in the administration of this programme by the Committee having it in charge. The programmes of the School leading to more or less professional degrees have, on the whole, made a slight gain.

This year marked the culmination of the remarkable growth of the Lawrence Scientific School under the administration of Professor Shaler. Therefore it may be not out of place to present here in tabular form a record showing the extent and nature of this numerical growth. The table is given below. Throughout the table the Special Students are distributed, at times somewhat arbitrarily, among the several programmes, this being the form customarily pursued. For the year 1891–92 this was not done. There exist

	1891–92.	1892–93.	1893–94.	1894–95.	1895–96.	1896–97.	1897–98.	1898–99.	1899–1900.	1900–01.	1901–02.	1902–03.	1903–04.	1904–05.	1905–06.
Civil Engineering .		40	57	44	41	32	44	53	53	62	56	72	72	68	55
Mechan. Engineering			8	27	41	70	70	66	61	64	82	70	56	57	66
Elect. Engineering .		31	56	63	65	44	47	40	45	42	49	61	74	84	83
Min. and Metall. . .				6	7	13	17	19	30	42	67	75	68	67	68
Architecture				30	45	45	54	39	36	26	29	35	40	44	46
Landscape Architect.										11	9	11	16	15	17
Forestry													7	8	13
Chemistry		8	17	10	17	17	20	24	19	21	32	32	23	24	29
Geology		26	25	20	20	31	25	16	7	6	5	3	4	5	8
Biology		12	20	16	14	16	13	8	5	10	12	16	14	11	5
Anat. and Physiology		14	27	25	27	27	36	36	42	31	30	38	35	26	24
For Teachers of Sci.				8	8	12	11	8	16	22	21	30	13	23	24
General Science . .		50	70	59	55	61	73	106	181	170	157	141	126	98	66
Totals . . .	118	181	280	308	340	368	410	415	495	507	549	584	548	530	504

The figures in this table give the registration each year at the time of issue of the Catalogue. The figures given in the table at the beginning of the report are corrected for the year.

no data on which to base such a classification of about 30% of the Special Students of that year. Therefore, for the year 1891–92 only the total number of students is given.

The total enrolment of the School increased under Professor Shaler's administration from 118 to 504, with a maximum of 584. The increase in the number of programmes in the School is equally interesting. There were originally seven programmes. This number was increased to thirteen by the addition in the order named of programmes in Mechanical Engineering, Mining and Metallurgy, Architecture, For Teachers of Science, Landscape Architecture, and Forestry, some of which were revivals of earlier programmes little more than embryonic in character. The total number of students enrolled in the School rose to a maximum in 1902–03, with an attendance of 584. During the three succeeding years there was a falling off, which, however, was more than accounted for by a diminution in the students enrolled in the programme of General Science. That the number so enrolled should diminish has already been explained. If, however, the number of students in General Science is subtracted from the total enrolment, there remains an almost steady growth in the School. There has been a general impression that the number of Special Students in the School has been large. Bearing on this it is interesting to observe that the number of Special Students plays a far from important rôle in the growth of the School. In the first year of Professor Shaler's administration, the Special Students formed 60% of the total enrolment of the School, while in the last year the percentage of Special Students had fallen to less than 28% of the total number. The percentage of Special Students almost steadily decreased from the beginning to the end of the period.

It is not possible to show in so simple a form the improvement in quality. Nevertheless, it is the opinion of practically everyone who is in contact with the students that the work has greatly improved in quality in recent years; that, with the exception, of course, of the Special Students, the initial attainment and earnestness of endeavor have steadily improved, and now are in no way inferior to that of the larger undergraduate department — the College. The Scientific School lost by the death of Professor Shaler the guidance that had led it through increased membership and through improved scholarship to a most dignified position in the University. Against the disintegrating effects of competition of almost equal technical opportunities in the College, his personality was the principal cohesive force in the Scientific School.

In March of the academic year 1905–06, the President and Fellows, and the Board of Overseers, on recommendation of the Faculty of Arts and Sciences, voted concurrently to adopt the following plan for the administration of the degree of Bachelor of Science and higher degrees in applied science and for the reorganization of the Lawrence Scientific School: —

1. A degree of Bachelor of Science is established in Harvard College, the requirements for admission of students intending to become candidates for this degree to be the same as the present requirements for admission to the Lawrence Scientific School, and the requirements for graduation to be the same as the requirements for the degree of Bachelor of Arts in respect to the number of courses required, the grade of work demanded, and the length of residence. The new degree of Bachelor of Science, like the degree of Bachelor of Arts, will be given *without* designation of any field of study.
2. A Graduate School of Applied Science is established in Harvard University. The subjects in which degrees will be granted in this Graduate School will be for the present Engineering (Mechanical, Electrical, and Civil), Mining and Metallurgy, Architecture, Landscape Architecture, Forestry, Applied Chemistry, Applied Biology, and Applied Geology. A Bachelor's degree in arts or science, or its equivalent, will be required for admission to this School.
3. The present degree of Bachelor of Science *with* designation of the field of study, on completion of any one of the present four-year programmes of the Lawrence Scientific School (namely, Civil and Topographical Engineering, Mechanical Engineering, Electrical Engineering, Mining and Metallurgy, Architecture, Landscape Architecture, Forestry, Chemistry, Geology, Biology, Anatomy and Physiology, For Teachers of Science, and General Science), will be maintained as long as it shall seem best.
4. The new organization of the instruction in Applied Science will provide in Harvard College and the Graduate School of Applied Science, jointly, five years of instruction in the several fields of study in Applied Science.
5. The arrangements above described will take effect beginning with the academic year 1906–07.

In June the Corporation voted to add Physics to the list of studies in which degrees will be granted in the Graduate School of Applied Science.

The two most important aspects of this reorganization are the establishing in Harvard College of the degree of Bachelor of Science and the organization of the work in applied science as a Graduate School on a level with the other professional schools of the University, the Schools of Law, Medicine, and Divinity.

Professor Nathaniel Southgate Shaler, Dean of the Lawrence Scientific School from 1891, died on the 10th of April, 1906. During his long deanship, the longest in the history of the University, he not only developed the School as an important factor in the University, but, by his strong personality, gave to the School and his office as Dean a prominence, both in the University and before the public at large, out of proportion to the numerical strength of the School.

WALLACE C. SABINE, *Dean.*

ATHLETIC SPORTS.

To the President of the University: —

Sir, — I have the honor of submitting to you a report for the academic year 1905–06 on the work of the Committee on the Regulation of Athletic Sports.

The principal functions of the Committee are the supervision of the grounds, buildings, and equipment; the control of the finances; the approval of appointments; the regulation of athletic contests at home and elsewhere; and the administration of its rules.

The general care of the grounds and buildings, excepting the Gymnasium, devoted by the University to athletic sports and exercise, was left to the Committee at an early date; and by vote of the Corporation (Oct. 10, 1892) the Soldier's Field was also placed in charge of the Committee.

I. Equipment.

During the past year the following changes and improvements in the athletic plant have been made. Five new courts were laid out on Jarvis Field, the expense of which was borne by Mr. D. L. Pickman, of the Class of 1873. These new courts have partly made good the loss of courts on Holmes Field occasioned by the erection of the new Law School building. It is probable that the latter field will ultimately not be available for tennis, so that the problem of additional space for tennis courts will soon become pressing. When Soldier's Field has been entirely reclaimed it should accommodate a large number of tennis courts. Even at present there would be space along the north fence between the Newell Gate and the gate opposite the University boat-house for a single row of seventeen courts without inconveniencing other sports. With a little additional grading, a double row of thirty-four courts could be laid out not far from the same fence.

The improvements in the University boat-house have made it a more attractive building, and a new Weld boat-house is in process of construction. The old boat-house was purchased for about $20,000 by the City of Cambridge, when the parkway was laid out and the boat-house site taken by the city; and a rental of $500 per annum has been paid to the city for the use of the building. By careful investments the Trustees of the Weld Boat-House Fund have increased the capital to about $30,000. The late George W. Weld, of the Class of 1860, had intended to erect a new structure, and his family, in recognition of this intention, has recently given the sum of $100,000 for the purpose. The new boat-house will have two and one-half stories, and will be constructed of brick, concrete, and steel, with a red tiled roof. The floors will be granolithic, and little wood is to be used about the building. There are to be a repair shop, offices, locker rooms, bath and rubbing rooms, and a club room. The latest improvements will be utilized for run-ways, exits, and floats. Two balconies will give good views of the river. The dimensions of the building are 158 feet by 78 feet. It will stand on the site of the old boat-house, which has been moved down stream, and will be used temporarily by the Weld crews. A lease of ninety-nine years for the new boat-house at the previous rental has been secured from the City of Cambridge. The completion of the various details made necessary by reason of this gift has been accomplished by the good offices of Mr. William S. Youngman, of the Class of 1895. This liberal gift will greatly enlarge the opportunity for participation in rowing by increased numbers of students. The gift is peculiarly timely, as the erection of the new dam, creating a permanent stretch of high water for about eight miles, will greatly stimulate the use of the river. It is possible, however, that the increased traffic for pleasure and business may render shell rowing less free from inevitable interference.

Work on the drainage of Soldier's Field has been continued, and a series of catch basins has been placed around the western and northern boundaries. A uniform system of tiled ditches has been initiated, and the drainage of the lower part of the western side has been completed. This piece has been partly filled, and a driveway round the entire field just inside the fence, to be lined with trees, is under way.

The sanitary facilities at the Stadium have been somewhat increased, and the Gate Lodge has been made more convenient as a waiting-room for women. During the present summer the locker building and the base-ball cage have been repainted, and the steel work of the Stadium has received one coat of paint.

The use of the Stadium has been enlarged by the successful performance of a Greek play; and the exercises held there on Class Day have continued to be a notable and successful feature of that occasion.

The spectators' seats for base-ball remain unsatisfactory and inadequate, although the permanent steel framework has diminished the danger from fire, except at the great games, at which additional bleachers made entirely of wood must be erected. The stands are patrolled by policemen, and two or three small fires during the season were quickly put out by the use of Babcock extinguishers. At the large games a fire engine is also in attendance. A permanent and fireproof grand stand of concrete or brick and steel is much needed.

II. FINANCES.

The cost of the Stadium to date has been $309,210.45. This sum includes a land purchase for $12,000, of which $5,742.96 was given by Major H. L. Higginson. The Class of 1879 gave $100,000; and the Athletic Committee has turned in sums amounting to about $160,000. By January 1, 1907, the debt on the Stadium, with interest, will amount to about $50,000. This total may be somewhat reduced at that time by additional payments from the accumulations of the fall season.

The tables which follow, compiled from the published reports, show the expansion of athletics, which keeps pace with the expansion of the University and the expansion of the national life.

The detailed figures for 1894–96 were not available. The falling off in subscriptions accompanies an increase in the surplus. Attention is called to the growth of the budgets of the minor sports. A progressive increase in training table expenses and in supplies may be traced in the detailed reports of the Graduate Treasurer which are annually published.

The expenditures in general reveal an unnecessary extravagance which no surplus, however large, can justify. That a successful season in sport does not depend upon lavish outlay has been repeatedly proven by the budgets of a number of other institutions. It cannot be maintained that the Harvard funds have been misappropriated, but they have been administered without due economy. The responsibility for this situation must be divided and may be charged in part to the system. Repeated changes in the office of Graduate Treasurer as well as in the undergraduate managerial positions render it difficult to utilize suitably the experience of the various incumbents from season to season. Few graduate coaches are anxiously concerned about limiting the team's expenses; and the undergraduate manager, who is often unfairly charged with parsimony, is not infrequently impaled on either horn of a dilemma, in the difficult search for a happy medium between a penny-wise and pound-foolish policy.

HARVARD ATHLETIC ACCOUNTS. — EXPENSES

	1889–90	1890–91	1891–92	1892–93	1893–94	1894–95	1895–96	1896–97	1897–98	1898–99	1899–00	1900–01	1901–02	1902–03	1903–04	1904–05
Freshman Foot-Ball	$727.90	$1,808.33	$1,167.20	$3,000.95	$1,326.27	$1,144.09	$284.59	$902.38	$1,624.98	$2,010.99	$2,541.25	$1,791.80	$1,192.97	$1,277.26	$830.58	$1,329.36
Freshman Base-Ball	866.21	848.12	1,432.35	1,323.81	1,050.52	855.16	1,161.44	1,018.57	904.15	1,229.84	1,504.06	1,214.11	878.61	909.25	851.84	1,314.25
Freshman Crew	2,069.43	2,304.35	2,979.42	2,828.58	3,148.83	3,149.24	2,274.88	2,879.42		2,526.06	2,228.05	2,110.37	2,186.98	2,256.79	3,092.46	2,621.57
Athletic Association, Track Team	2,826.44	3,846.27	5,038.79	4,612.54	4,741.12	3,286.89	3,594.59	4,264.72	4,472.71	4,245.47	2,675.61	6,328.68	5,857.07	7,790.41	6,522.25	6,625.46
Cycling Association	877.02	831.21	321.81	511.94			675.55	522.66								
Foot-Ball Association	9,060.10	8,951.88	11,487.50	16,238.86	18,076.25	15,167.11	11,808.45	11,822.80	10,355.92	10,239.74	18,335.83	19,688.16	16,445.10	15,231.74	15,346.51	17,424.78
Base-Ball Association	7,823.69	5,586.68	18,840.26	18,477.20	10,930.98	7,958.62	7,913.98	7,729.52	13,207.45	10,677.77	10,492.02	10,566.28	11,173.88	10,634.45	12,638.89	11,564.36
Lawn Tennis Association	607.51	985.33	1,010.27	447.39	319.47	2,211.21	988.46	1,100.80	898.04	1,000.74	874.36	1,160.67	1,586.70	281.22	274.76	179.75
Rowing Club	662.83	2,335.60	1,824.15	1,878.04												
Cricket Club	566.57	324.10	580.11	385.45	430.88		299.35		150.00		141.10	288.95	440.50	198.19	479.28	431.46
Boat Club	6,958.20	6,852.02	7,401.31	8,078.14	7,568.55	10,180.97	8,265.56	7,883.09	8,197.73	10,530.08	5,672.51	6,394.56	7,097.83	6,812.12	9,857.27	10,147.97
Lacrosse Association								391.89			687.07	800.21	212.85	875.65	1,109.97	1,205.87
Second Nine, College Nine								1,158.87	817.46	111.83	279.69	271.50	273.62	320.06	347.41	307.01
Weld Boat Club											1,754.75	3,513.42	4,139.00	3,423.74	2,739.92	2,618.12
Newell Boat Club											1,374.71	2,423.51	2,659.28	2,726.84	2,502.89	2,800.29
Skating Rink											76.78	123.87				
Freshman Basket-Ball												87.75			150.95	137.65
Basket-Ball Team												282.10		749.24	818.58	1,029.55
Hockey Club													448.95	744.71	1,310.99	1,463.14
Fencing Team													279.37	362.37	644.11	82.00
Lawn Tennis Courts														1,499.57	1,485.81	1,791.27
Gymnastic Team															183.08	34.00
Freshman Hockey															151.05	46.85
Jui Jitsu																167.50
Hand-Ball																52.64
Second Basket-Ball																66.69
Association Foot-Ball																45.04
	33,040.90	34,673.89	52,083.17	57,782.90	47,592.87	43,953.29	36,701.55	39,665.79	40,628.44	42,572.02	48,647.79	56,940.69	54,872.71	56,094.50	61,338.65	69,487.12

HARVARD ATHLETIC ACCOUNTS.—RECEIPTS

	1889-90	1890-91	1891-92	1892-93	1893-94	1894-95	1895-96	1896-97	1897-98	1898-99	1899-00	1900-01	1901-02	1902-03	1903-04	1904-05
Freshman Foot-Ball	$783.00	$2,256.72	$1,251.30	$3,408.53	$711.96	$1,268.30		$684.00	$1,212.18	$1,494.37	$3,216.45	$1,612.69	$1,231.72	$1,317.35	$1,143.67	$1,301.78
Freshman Base-Ball	930.30	1,242.66	1,298.25	1,248.15	761.00	835.65	$1,321.10	1,018.57	1,061.01	1,508.75	1,345.68	1,419.41	1,255.50	1,142.05	892.40	1,239.35
Freshman Crew	2,112.89	1,930.61	3,144.35	2,453.58	1,920.55	3,149.24	2,232.55	2,066.28		2,250.00	2,606.50	1,965.33	2,112.96	2,218.50	2,224.10	2,107.89
Athletic Association, Track Team	2,337.60	3,842.18	5,061.04	3,468.96	1,572.26	1,346.50	3,191.56	1,721.86	2,174.63	823.48	1,965.74	3,440.49	4,910.28	5,278.74	5,968.63	4,906.81
Cycling Association	877.02	383.56	365.33	526.10			298.75									
Foot-Ball Association	11,360.61	3,592.57	16,661.59	34,139.70	32,092.01	40,230.08	34,167.96	31,418.42	37,106.58	37,985.70	60,604.41	56,310.57	54,248.01	57,790.36	72,569.31	68,657.10
Base-Ball Association	9,639.13	4,102.34	20,164.30	22,424.16	12,150.94	7,884.41	7,810.90	10,136.05	11,176.08	11,364.65	13,942.37	11,526.80	17,781.55	14,964.68	16,674.08	16,962.56
Lawn Tennis Association	531.37	1,058.29	963.63	412.81	416.74	1,725.36	1,172.34	806.10	681.77	976.60	1,280.55	1,687.96	2,371.96	128.50	164.50	181.50
Rowing Club	1,306.54	1,815.02	2,225.25	1,497.36												
Cricket Club	518.60	341.02	560.96	335.44	429.94		299.35				26.50	262.00	245.50	31.50	155.25	317.00
Boat Club	6,426.37	6,918.78	7,260.74	4,042.09	296.65	4,228.10	5,120.70	4,015.11	2,370.00	5,147.10	5,443.54	6,792.76	4,416.31	3,763.85	3,375.75	3,354.00
Lacrosse Association								298.19			527.60	302.98	17.77	401.65	562.47	335.05
Second Nine, College Nine								573.82	248.50	16.50	141.90	220.73	197.96	216.06	273.04	171.50
Weld Boat Club											568.50	1,632.50	2,341.00	1,174.08	860.50	924.00
Newell Boat Club											904.22	1,069.36	1,490.16	1,062.30	1,096.30	954.56
Skating Rink											72.00	57.00				
Freshman Basket-Ball												37.50			174.90	190.00
Basket-Ball Team												295.10		601.00	600.70	980.25
Hockey Club													450.90	257.40	1,038.90	1,483.00
Fencing Team													157.11	102.05	142.45	83.40
Lawn Tennis Courts														2,438.60	2,618.60	3,169.90
Gymnastic Team															127.00	
Freshman Hockey															151.05	47.35
Jui Jitsu																67.50
Hand-Ball																2.64
Second Basket-Ball																94.92
Freshman Lacrosse																18.50
	$37,697.42	32,392.58	50,016.71	64,090.68	50,252.63	60,717.62	46,615.40	58,492.45	56,080.79	61,506.50	92,542.33	88,602.10	98,112.06	93,904.04	110,545.13	108,071.62

HARVARD ATHLETIC ACCOUNTS.—TOTAL RECEIPTS AND EXPENSES

	1889-90	1890-91	1891-92	1892-93	1893-94	1894-95	1895-96	1896-97	1897-98	1898-99	1899-00	1900-01	1901-02	1902-03	1903-04	1904-05
Total Receipts	$37,697.42	$32,882.58	$59,016.71	$64,099.68	$50,352.63	$60,717.62	$45,615.49	$53,492.45	$56,020.79	$61,566.59	$93,242.33	$88,592.10	$93,113.66	$92,904.04	$110,845.13	$108,071.62
Total Expenses	33,040.90	34,173.89	52,083.17	57,782.90	47,592.87	43,953.29	36,761.85	38,663.72	40,628.44	42,572.02	48,647.79	56,940.69	54,867.71	56,094.50	61,338.55	63,487.12

HARVARD ATHLETIC ACCOUNTS.—TRAINING TABLES

	1889-90	1890-91	1891-92	1892-93	1893-94	1894-95	1895-96	1896-97	1897-98	1898-99	1899-00	1900-01	1901-02	1902-03	1903-04	1904-05
Freshman Foot-Ball	$136.05	$459.41	$205.47	$394.54	$326.37			$258.86	$372.06	$264.58	$382.40	$240.70	$148.60	$120.90	$143.95	$195.97
Freshman Base-Ball					269.40			409.00	100.10	245.72	372.84	236.78	156.77	216.70	229.60	337.69
Freshman Crew		473.00	662.80	523.00	608.30			731.90		550.50	166.98	177.39	148.10		16.49	
Athletic Association, Track Team	246.00	549.87	732.45	872.51	1,088.12			1,072.84	529.43	1,021.10	630.65	625.79	1,030.26	1,312.40	1,235.12	904.34
Foot-Ball Association	659.44	1,581.40	1,912.02	2,305.60	2,156.27			1,632.67	2,378.33	1,854.61	2,106.64	2,469.78	2,965.96	2,885.71	2,474.89	2,101.08
Base-Ball Association	762.99	450.00	1,808.84	1,062.58	2,061.52			1,292.55	1,493.73	1,244.68	618.52	1,023.00	1,317.15	1,440.29	2,026.81	1,882.86
Boat Club	617.50	457.70	1,231.77	643.20	1,346.19			1,702.12	893.50	1,623.08	436.59	595.15	930.24	676.87	1,128.00	1,134.07
Lacrosse Association												89.00	50.00	220.20	191.10	183.42
Weld Boat Club											151.71	170.85				
Newell Boat Club											100.07	92.87				
College Nine																94.60
Basket-Ball Team															101.50	
Hockey Club													63.40	462.43	203.12	267.88
	2,421.98	3,971.38	6,553.35	5,801.43	7,856.17			7,099.94	5,767.15	6,804.27	4,966.40	5,721.31	6,810.48	7,335.50	7,750.58	7,101.91

HARVARD ATHLETIC ACCOUNTS. — SUBSCRIPTIONS

	1889–90	1890–91	1891–92	1892–93	1893–94	1894–95	1895–96	1896–97	1897–98	1898–99	1899–00	1900–01	1901–02	1902–03	1903–04	1904–05
Freshman Foot-Ball	$623.00	$840.65	$905.90	$401.50	$348.50			$854.60	$459.88	$511.40	$1,368.50	$1,438.00	$844.50	$933.25	$928.20	$1,019.25
Freshman Base-Ball	348.50	328.50	294.70	416.50				788.57	748.76	1,137.75	1,368.50	993.25	957.78	845.10	633.81	894.15
Freshman Crew	1,829.50	1,743.75	2,831.77	2,386.24	1,681.50			2,493.01		2,250.00	2,606.50	1,937.01	2,109.50	2,129.05	2,224.10	2,107.89
Athletic Association, Track Team	524.14	1,261.00	1,292.10	609.70						694.98	1,057.00	2,204.83	2,519.78	1,765.50	2,019.61	1,697.00
Cycling Association	567.25	515.50	105.68	120.00												
Foot-Ball Association	3,629.00	1,170.00														
Base-Ball Association																
Lawn Tennis Association	50.00	100.00	12.00													
Cricket Club	402.10	322.52	395.18		226.50						26.50	268.00	245.50	30.00	155.25	317.00
Boat Club	3,817.70	5,179.78	4,855.14	2,567.09	12.65			3,052.17	1,519.16	4,085.10	4,766.04	4,977.76	2,353.60	1,584.90	1,623.75	2,028.60
Lacrosse Association								130.69			477.85	544.98	17.77	266.00	349.47	312.00
Weld Boat Club											35.00	250.00				
Newell Boat Club											569.32					
Freshman Basket-Ball															188.25	130.00
Basket-Ball Team														240.00	262.50	473.25
Hockey Club													422.90	287.40	492.50	889.50
Fencing Team													157.11	102.05	110.50	62.50
Freshman Hockey															151.05	47.85
Jui Jitsu																57.50
Hand-Ball																2.64
Freshman Lacrosse																18.50
	11,791.19	11,456.70	10,692.47	6,501.03	2,269.15			7,319.04	2,727.80	8,629.18	12,275.21	12,608.78	9,628.44	8,183.25	9,088.99	10,057.62

III. Branches of Athletics.

The branches of athletics under the supervision of the Committee at present include rowing, base-ball, foot-ball, track and field athletics, cricket, tennis, lacrosse, hockey, basket-ball, the gun club, gymnastics, the rifle and pistol club, fencing, hand-ball and golf. Jiu-jitsu has apparently dropped out. The oldest branch is rowing, which has already entered upon its second half-century of existence as a college sport. The year just past has witnessed some interesting experiments. In the fall season a plan of intramural competition by means of crews recruited from various dormitories or groups of dormitories was satisfactorily initiated. During the cold days of November animated contests occurred among sixteen eights composed almost entirely of men who were not engaged in intercollegiate competitions. The interest aroused promised much for the future, and the dormitory unit may become the most available basis for local contests. The experiment of a professional coach for the University squad was continued, and resulted in the first victory for a number of years. The crew was also ably captained and well manned. Encouraged by this success, the rowing management decided to attempt to arrange an informal race on the English Thames with the 'Varsity crew of Cambridge University. This invasion of English waters was welcomed with cordiality. The Harvard crew sustained an honorable defeat, and the occasion developed an increasing international friendliness.

The management of the base-ball nine determined to do without paid assistance during the season, although the available playing material was less experienced than usual.

The interest in track athletics was unabated and was enhanced the past year by the important competitions which were held in the Stadium. The general intercollegiate meet illustrated well the safety, convenience, and attractiveness of the edifice for such contests.

The season in foot-ball was unsatisfactory and disturbing. In the midst of warnings and remonstrances from many quarters the outcome of the fall campaign once more made clear the difficulty of playing this game acceptably under the existing rules. Even before the close of the season the head coach of the Harvard team called for a revision of the rules, and at the end of the year a wave of resentful remonstrance swept over the country, which had many important results. At some institutions, owing partly to local conditions, the game was prohibited outright. At others the number and kind of contests were limited. Numberless suggestions were made for reforming the game. At Harvard the President had repeatedly pointed out its evils. The Overseers had condemned it in its present form, and the Faculty of Arts and Sciences expressed the opinion that intercollegiate foot-ball should be prohibited at Harvard until a reasonable game should have been formulated and exemplified in practice.

The Athletic Committee at a similar crisis in 1895 had been notified by the Governing Bodies that the question of the continuance or abolition of intercollegiate foot-ball was within the powers of the Committee under the standing rule of both bodies. (Vote of the Corporation, March 25, 1895; of the Overseers, April 10, 1895.) Early in the discussion the Committee voted that it would favor a continuance of the game at Harvard only in case the existing rules and regulations under which the game was played, and which it regarded as unsatisfactory, should be changed in such a way as to be acceptable to the Committee.

Meanwhile a committee of representative Harvard graduates, chiefly foot-ball experts, held a long series of meetings, and presented a set of suggestions for changes in the rules. Harvard withdrew its representatives from the old Foot-ball Rules Committee, which was then dissolved and the members united with a National Foot-ball Rules Committee which represented an organization of some seventy representatives of various institutions. The outcome of their deliberations was a set of rules which appeared to the Harvard Athletic Committee to afford a reasonable assurance that a satisfactory game might be played under them. That is to say, it seemed possible under the revised rules that those who wished to play a fair game would have a fair chance; and it seemed desirable and expedient to permit the Harvard team to coöperate with other University teams in the endeavor to test these rules in intercollegiate contests.

The Committee accordingly voted, so far as it had authority, to sanction the game at Harvard as an intercollegiate sport for the season of 1906, but delayed the foot-ball schedule until the Committee had reported, as requested, to the Governing Bodies, and the latter had expressed their opinion and taken such action as might seem to them best. The Corporation and Overseers having finally agreed to permit the game for 1906, the Committee then authorized the foot-ball management to proceed definitely with its schedule.

The season of 1906 is likely therefore to prove fateful for foot-ball. Both the game and the players are on trial. It remains to be proved whether a game which involves such intimate personal collision can be played in a sportsmanlike manner, where there is the keenest spirit of competition, in the presence of large numbers of intensely partisan spectators. The issue is doubtful; but at least it cannot be said that the Harvard authorities have not exhausted every opportunity for permitting a final experiment.

The legislation accomplished by the Committee during the year embraced some important action. At the initiative of Harvard the following regulations were adopted concurrently by Harvard, Yale, and Princeton; and have since been imitated by a number of other institutions: —

1. No student shall be eligible for membership on a University team unless he shall have completed satisfactorily a full year's work at the University and has passed satisfactorily the examinations for an advance with his class.

2. No student shall be eligible for membership on a University team who holds a degree advanced enough to admit him at least to the Senior Class.

3. No Special Student shall be eligible to membership on a University team until
   (*a*) he has satisfied entrance requirements equivalent to those required of Freshmen;
   (*b*) has completed a full year's work equivalent to that required of candidates for a degree and has passed a satisfactory examination in said work;
   (*c*) and is taking during his year of competition a full year's work at the University.

4. No student shall represent one or more universities or colleges in athletic contests more than three academic years. (This rule is not to affect students now in college.)

Otherwise the above rules are to go into effect in September, 1906, and are to relate to the four major sports only.

The regulations excluding Graduates and Freshmen from the 'Varsity teams in the major sports were afterwards extended by the Committee to cover all branches of sport. The Committee also voted that in its opinion a student in any Graduate Department should not be considered eligible for a University team.

The above regulations had long been under consideration, but their enactment was facilitated by a communication from the Faculty of Law intimating that such legislation would be desirable in the interests of the students under its direction.

The business of the Committee has steadily increased from year to year, so that some reorganization seems imperative. A joint Committee of the Corporation and Overseers was appointed in May to consider and report upon the whole subject of the regulation of athletic sports; and the Athletic Committee was directed meanwhile to sanction no appointment for intercollegiate contests later than December 1, 1906. The Athletic Committee has appointed a sub-committee to consider some rearrangements in its own administration. The members of the Athletic Committee serve voluntarily and gratuitously, but the major part of the burden falls to the lot of the Chairman, who has been a member of a Faculty, but has heretofore experienced no consequent diminution of his professorial duties. During the past year the Committee has held twenty-four meetings. These meetings are called by the Chairman. The business is prepared and the correspondence of the Committee is conducted by him. His correspondence involves the relations of the Committee to sixteen branches of sport and nine subsidiary branches, questions affecting the extensive athletic plant, and multitudinous inquiries from the outside world with reference to Harvard athletics. The Chairman is supposed to be familiar with the details of the management of all branches of the athletic plant, and with the financial situation. He is expected to sign various contracts, and to be informed concerning numerous appointments. He is subject to incessant calls and inquiries from representatives of all branches, a service which is almost always agreeable, but thoroughly time-absorbing. He is often called upon to represent the University in intercollegiate questions, a function occasionally involving delicate negotiations. In common with the other members of the Committee, he is supposed to have some personal knowledge of the way in which the various University teams conduct themselves. He is frequently called upon to interpret and enforce the Faculty rules and the Committee regulations. An entirely satisfying administration of the office would demand the full time and attention of its occupant. The Committee is assisted by a staff of permanent appointees, to whose competency and fidelity is due largely the fairly successful working of the system. The Graduate Treasurership, a position which is of great importance, has been filled by able and conscientious men, whose time, however, has been partly demanded by other duties; and the position has been occupied by the same person for only a year or two. If the present organization of the Committee be continued, it seems desirable to make the Graduate Treasurership a permanent and dignified post, with a salary sufficient to command and retain the services of the right man, preferably a comparatively recent graduate. The appointment of a permanent paid secretary was felt that such a Graduates' Quadrangle or Hall would "prove of the highest value in promoting the sense of union and fellowship and of the solidarity of interests on the part of those who pursue the scholar's life, which is among the most powerful agents in the development of intellectual as well as moral character." * By the energy and initiative of one or two members of the Faculty, assisted by the officers of the Graduate Club, and through the wise liberality of the Corporation, measures were taken, during the latter part of the year 1905–06, to bring about the fulfilment of this long cherished plan. Conant Hall, on Oxford Street, one of the best of the College dormitories, was set aside for the use of students in the Graduate School of Arts and Sciences. The rents were somewhat reduced, and heat by hot water was supplied to all the rooms. Professor W. H. Schofield was chairman of the Faculty committee on the improvements. The building, after certain rearrangements, contains, besides the proctor's suite, 29 suites of study and bedroom, of which 12 are furnished, and 26 single rooms, the rents running from $60 to $210 per annum. The two suites in the south end of the building on the first floor, with the corridor between them, have been thrown together to form a large Common Room. This has been suitably furnished through a very generous gift of five hundred dollars from Mrs. Emil C. Hammer, of Boston. It is intended that the Common Room shall serve as a social centre not only for the students in the Hall, but for all members of the Graduate School of Arts and Sciences; and that it may be used for the meetings of the Graduate Club and of the various departmental clubs of Graduate membership.

The members of the Administrative Board were Professors Davis, Mark, G. F. Moore, H. W. Smyth, Kittredge, Münsterberg, Sabine, Bôcher, and Carver, and the Dean. The Board met once a month from October to June, omitting December and April. The most important questions which it had to consider, aside from routine business, concerned the relation of the degree of Doctor of Philosophy to the rapidly developing graduate instruction in the Medical School. Early in the year a student petitioned that provision be made to enable him to come up for the degree of Ph.D. on work in pharmacology, to be done as a graduate student in the Medical School. This request was referred to the Division of Chemistry for consideration and report. That Division reported that it would be glad to take charge of the student's work, adding to its number for the

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* Report for 1901–02, p. 169.

purpose some medical men. This action was adopted by the Board. Later a communication was received from the Division of Chemistry, suggesting the establishment of a degree of Ph.D. in Biological Chemistry. After consulting the Division of Biology, the Board, while in general favoring the encouragement of work along chemico-biological lines, voted: "It is undesirable to provide for a new degree to be called Doctor of Philosophy in Biological Chemistry. Work of the kind suggested could in the opinion of the Board be adequately recognized by a degree either in Chemistry or in Biology, according as chemical or biological studies predominated in the candidate's work. Judging from past experience, all cases that are likely to arise can be provided for in this way. In examinations for such degrees, it would be in accordance with established practice for either Division to invite representatives of other Divisions to take part in the examination. In such cases there is precedent for giving less emphasis to the general subject of Chemistry (or Biology) than if the candidate were working wholly in that Division."

One new fellowship was established in the School during the year 1905–06, while another, previously established, was endowed. In 1905, the University received ten thousand dollars from the estate of Miss Eliza W. S. Parkman, to establish, in memory of her brother, the historian, the "Francis Parkman Fellowship," the income thereof to be applied "to the aid of meritorious students, pursuing advanced studies, whether at the University or elsewhere." In 1906, by vote of the Corporation, this fellowship was assigned to the Graduate School of Arts and Sciences. For the current year it is held as a travelling fellowship, with a stipend of four hundred and fifty dollars, by a distinguished student of history.

The Julia Amory Appleton Fellowship in Architecture, maintained since 1904 by an annual gift of one thousand dollars from Mr. Charles F. McKim, of New York, was endowed by Mr. McKim in 1906 with a principal of twenty thousand dollars.

The Edward William Hooper Fellowship, though established in 1905, was not assigned for the year 1905–06. For the present year the accumulation of income has permitted two appointments, each with a stipend of one thousand dollars.

The Association of American Universities, which was founded in 1900 for the promotion of graduate studies, but has since widened its scope to consider all advanced instruction, met for its seventh annual conference on March 14–17, 1906, at San Francisco, Berkeley, and Palo Alto, California. California, Chicago, Columbia, Cornell, Harvard, Johns Hopkins, Leland Stanford, Princeton, Wisconsin, and Yale were represented; the Catholic University of America, Clark, Michigan, Pennsylvania, and Virginia sent no delegates. Papers were read and discussed on "Interchange of Professors in Universities," "To What Extent should the University Investigator be Relieved from Teaching?" "The Reaction of Graduate Work on the other Work of the University," and "The Changing Conception of 'The Faculty' in American Universities."

Following are the customary tables, in which the condition and progress of the School are presented in considerable detail.

TABLE I. — NUMBER AND CLASSIFICATION OF STUDENTS.

	1903–04.		1904–05.		1905–06.	
I. Resident Students doing full work in the School for the whole academic year	289		273		260	
Resident Students not doing full work or not working for the whole year as Resident Students	123		105		133	
	—	412	—	378	—	393
Non-Resident Students holding fellowships	14		15		16	
Non-Resident Students not holding fellowships	1		2		0	
	—	15	—	17	—	16
II. Students whose studies lay chiefly in *						
i. Semitic Languages and History	2		2		2	
ii. Ancient Languages (Classics and Sanskrit)	37		34		35	
iii. Modern Languages (including Comparative Literature)	111		96		112	
iv. History and Political Science	78		86		82	
v. Philosophy (including Education)	64		52		40	
vi. Fine Arts (including Architecture)	15		19		13	
vii. Music	5		4		9	
viii. Mathematics	21		14		13	
ix. Engineering	9		3		10	
x. Physics	14		14		12	
xi. Chemistry	25		27		39	
xii. Biology	19		20		22	
xiii. Geology	20		14		10	
xiv. Anthropology	0		5		3	
Unclassed Students	7		5		7	
	—	427	—	395	—	409
III. First-year Students	259		237		220	
Second-year Students	89		92		109	
Third-year Students	51		45		54	
Fourth-year Students	18		18		16	
Students in a fifth or later year	10		3		10	
	—	427	—	395	—	409

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* For detailed statistics as to the number of Graduate Students enrolled in the various courses of instruction offered by the Faculty of Arts and Sciences, see the Report of the Dean of that Faculty, pp. 59–92.

IV. A.B.'s and S.B.'s of Harvard University and of no other institution	149	124	126
A.B.'s and S.B.'s (and holders of similar degrees) of other institutions and also of Harvard University	25	15	20
Students not holding the Harvard degree of A.B. or S.B.	253	256	263
	— 427	— 395	— 409
V. Students holding the Harvard degree of A.M., S.M., Ph.D., or S.D.	104	95	103
Students holding the Harvard degree of A.B. or S.B., but not of A.M., S.M., Ph.D., or S.D.	125	94	92
Students holding no Harvard degree in Arts, Philosophy, or Science	198	206	214
	— 427	— 395	— 409

Table I, to which Tables II, III, IV, and V are supplementary, shows the number of students in the School, resident and non-resident; their subjects of study; length of residence; and the numbers of those who hold or do not hold the Harvard first and second degrees. It shows a small increase in total membership; a loss in the number of first-year students and a gain in students of one year's standing or more, this shifting being a return toward the normal; and the increasing popularity of the Divisions of Modern Languages and Chemistry. The percentage of students from Harvard and from other colleges reveals no noteworthy change; but Table V shows a decline in the proportion of students from other colleges among first-year men — from 60% to 57%.

TABLE II. — PERCENTAGE OF STUDENTS IN THEIR FIRST AND FOLLOWING YEARS: 1900–06.

	1900–01.	1901–02.	1902–03.	1903–04.	1904–05.	1905–06.
	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
First-year Students	54	50	54	61	60	53
Second-year Students	23	26	26	21	24	26
Third-year Students	15	12	11	12	11	18
Fourth-year Students and Students of longer residence	8	12	9	6	5	8

TABLE III. — RESIDENT STUDENTS DOING FULL WORK, AND NON-RESIDENT STUDENTS: 1886–1906.

	1886–87.	1887–88.	1888–89.	1889–90.	1890–91.	1891–92.	1892–93.	1893–94.	1894–95.	1895–96.	1896–97.	1897–98.	1898–99.	1899–1900.	1900–01.	1901–02.	1902–03.	1903–04.	1904–05.	1905–06.
Resident Students doing full work in the School for the whole academic year .	38	48	50	62	62	108	127	162	161	175	194	171	218	227	226	218	216	289	273	260
Resident Students not doing full work or not working for the whole year as Resident Students	26	36	39	34	55	79	73	86	94	105	96	107	103	99	113	86	94	123	105	133
Whole number of Resident Students .	64	84	89	96	117	187	200	248	255	280	290	278	321	326	339	304	310	412	378	393
Non-Resident Fellows	10	10	9	11	11	9	9	10	12	13	14	15	12	13	14	11	15	14	15	16
Other Non-Resident Students	4	3	1	4	4	4	7	1	5	6	2	. .	3	2	. .	. .	. .	1	2	. .
Whole number of Non-Resident Students	14	13	10	15	15	13	16	11	17	19	16	15	15	15	14	11	15	15	17	16
Whole number of students	78	97	99	111	132	200	216	259	272	299	306	293	336	341	353	315	325	427	395	409
Percentage of Resident Students doing full work for whole academic year .	59	57	56	65	53	58	64	65	63	63	67	62	68	70	67	72	70	70	72	66

TABLE IV. — PERCENTAGE OF STUDENTS FROM OTHER COLLEGES.

	1897–98.	1898–99.	1899–1900.	1900–01.	1901–02.	1902–03.	1903–04.	1904–05.	1905–06.
Percentage of Students holding no Harvard degree	40	41	44	44	40	46	46	52	52
Percentage of Students holding no Harvard first degree in Arts or Sciences	55	55	61	62	56	62	59	65	64

TABLE V. — FIRST-YEAR MEN: PERCENTAGE FROM VARIOUS COLLEGES AND UNIVERSITIES—1901–06.

	1901–02.	1902–03.	1903–04.	1904–05.	1905–06.
Harvard	31	33	38	40	43
Other New England Colleges . .	14	20	21	12	13
Colleges in the Central States .	34	24	18	26	25
Colleges in States West of the Mississippi	9	12	9	12	8
Colleges in Southern States . .	4	6	7	5	3
Colleges in Canada	7	3	3	2	4
Foreign Universities	. .	. .	4	3	4

Table VI reveals little change in the proportion of Bachelors' degrees of different kinds in the School. Tables IX and X show a small increase in the number of New England students relative to those from other parts of the country.

TABLE VI. — PERCENTAGE OF BACHELORS' DEGREES OF DIFFERENT KINDS: 1897–1906.

	1897–98.	1898–99.	1899–1900.	1900–01.	1901–02.	1902–03.	1903–04.	1904–05.	1905–06.
A.B.'s	84	86	84	80	84	83	84	82	84
S.B.'s	9	8	10	11	11	10	10	12	12
Other Bachelors' degrees	7	6	6	9	5	7	6	6	4

Tables VII and VIII supplement each other and show in detail the extent to which different higher institutions of learning contribute to the membership of the School. In Table VII are given the various colleges and universities, including professional and technical schools, American and foreign, whose graduates were members of the School, together with the degrees these men held and the number of different men from each institution.

TABLE VII. — COLLEGES AND UNIVERSITIES, WITH DEGREES HELD: 1905–06.

	A.B.	S.B.	LITT.B.	PH.B.	A.M.	S.M.	PH.D.	S.T.B.	LL.B.	M.D.	No. Degrees.	No. Persons.
Acadia University, N. S.	2	. . .	. . .	. . .	1	. . .	. . .	. . .	. . .	. . .	3	2
Agricultural College of Utah	. . .	1	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	1	1
Alabama Polytechnic Institute	. . .	1	. . .	. . .	. . .	1	. . .	. . .	. . .	. . .	2	1
Allegheny College, Pa.	2	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	2	2
Amherst College, Mass.	6	2	. . .	. . .	3	. . .	. . .	. . .	. . .	. . .	11	8
Antioch College, O.	1	. . .	. . .	. . .	1	. . .	. . .	. . .	. . .	. . .	2	1
Baker University, Kan.	1	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	1	1
Bates College, Me.	3	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	3	3
Boston University, Mass.	3	. . .	. . .	. . .	1	. . .	1	1	1	. . .	7	7
Bowdoin College, Me.	3	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	3	3
Brigham Young College, Utah	1	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	1	1
Brown University, R. I.*	9	. . .	. . .	2	4	. . .	. . .	. . .	. . .	. . .	16	12
Bucknell University, Pa.	1	1	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	2	2
Caen, University of, France*	. . .	. . .	1	. . .	. . .	. . .	. . .	. . .	. . .	. . .	2	1
California, University of	2	1	. . .	. . .	1	. . .	. . .	. . .	. . .	. . .	4	3
Central College of Iowa	1	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	1	1
Chicago, University of, Ill.	2	. . .	. . .	1	1	. . .	. . .	. . .	. . .	. . .	4	4
Cincinnati, University of, O.	1	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	1	1
Colgate University, N.Y.	1	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	1	1
College of Charleston, S.C.	1	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	1	1
College of the City of New York	1	1	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	2	1
Columbia University, N.Y.	2	. . .	. . .	. . .	2	. . .	. . .	. . .	. . .	. . .	4	4
Cornell College, Ia.	. . .	1	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	1	1
Cornell University, N. Y.	4	1	. . .	1	2	. . .	. . .	. . .	. . .	. . .	8	6
Dalhousie University, N.S.	3	1	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	4	4
Dartmouth College, N. H.	5	. . .	. . .	. . .	1	. . .	. . .	. . .	. . .	. . .	6	6
Delaware College	1	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	1	1
Denison University, O.	1	1	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	2	2
Earlham College, Ind.	1	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	1	1
Episcopal Theological School, Cambridge, Mass.	. . .	. . .	. . .	. . .	. . .	. . .	. . .	1	. . .	. . .	1	1
Franklin and Marshall College, Pa.	1	. . .	. . .	. . .	1	. . .	. . .	. . .	. . .	. . .	2	1
French-American College, Mass.	1	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	1	1
Georgetown College, Ky.	1	. . .	. . .	. . .	1	. . .	. . .	. . .	. . .	. . .	2	1

George Washington University, D.C.						1					1	1
Georgia, University of		1									1	1
Grant University, Tenn.								1			1	1
Gustavus Adolphus College, Minn.	2										2	2
Hamilton College, N. Y.	3				1						4	3
Hamline University, Minn.				1							1	1
Hampden-Sidney College, Va.	1	1									2	1
Harvard University*	137	11			99	3	6	1	2	2	262	197
Haverford College, Pa.	5										5	5
Hiram College, O.	2										2	2
Illinois College	1										1	1
Illinois, University of	1	2				1					4	2
Indiana University	4				2						6	4
Jefferson Medical College, Pa.										1	1	1
Johns Hopkins University, Md.	1										1	1
Kansas, University of	2				2						4	3
Kenyon College, O.	1										1	1
Knox College, Ill.	1				1						2	1
Lawrence University, Wis.	1										1	1
Leipsic, University of, Germany							1				1	1
Leland Stanford Jr. University, Cal.	3				1						4	3
Lincoln College, Ill.	1										1	1
Louisville Male High School, Ky.	1										1	1
McMaster University, Ont.	2				2						4	2
Massachusetts Institute of Technology*		2									3	2
Michigan Agricultural College		1									1	1
Michigan College of Mines*		1									2	1
Michigan, University of	6		2		3				1		12	10
Minnesota, University of	2										2	2
Mississippi, University of	1										1	1
Missouri, University of	1				2						3	2
Missouri Valley College	1										1	1
Mount Union College, O.						1					1	1
National Normal University, O.		1									1	1
Nebraska, University of		1			1						2	1
New Brunswick, University of	1										1	1

TABLE VII. — CONTINUED.

	A.B.	S.B.	LITT.B.	PH.B.	A.M.	S.M.	PH.D.	S.T.B.	LL.B.	M.D.	No. Degrees.	No. Persons.
New York University	1				1						2	1
North Carolina, University of	1										1	1
Northeastern Ohio Normal College		1									1	1
Northwestern University, Ill.				1							1	1
Northwestern University, Wis.	2										2	2
Oberlin College, O.	3										3	3
Ohio Northern University			1								1	1
Ohio Wesleyan University	11		1		1						13	12
Oregon Agricultural College		1									1	1
Oregon, University of	1										1	1
Ottawa University, Kan.	1	1									2	2
Oxford, University of, Eng.	1	1			1						3	2
Park College, Mo.	1				1						2	1
Pennsylvania, University of	1	1									2	2
Polytechnic Institute of Brooklyn, N.Y.	1										1	1
Pomona College, Cal.	1										1	1
Princeton University, N.J.	3				2						5	3
Purdue University, Ind.		1									1	1
Queen's University, Ont.					2			1			3	2
Rhode Island College		1									1	1
Richmond College, Va.	1				1						2	1
Rochester, University of, N.Y.	4										4	4
St. Anselm's College, N.H.	1			1							2	1
St. Lawrence University, N.Y.	1				1						2	1
South, University of the, Tenn.	2										2	2
Southern University, Ala.	1										1	1
State College of Kentucky	1				1						2	1
State University of Iowa	1			2	1	1					5	3
Strasburg, University of, Germany							1				1	1
Syracuse University, N.Y.	2										2	2
Tabor College, Ia.	1										1	1
Texas, University of		1				1					2	1
Toronto, University of, Ont.	3				1						4	3

Trinity College, N. C.	1	...	...	...	1	...	...	...	...	...	2	1
Tufts College, Mass.	...	...	...	1	...	...	...	...	...	...	1	1
Vanderbilt University, Tenn.	2	1	...	...	1	1	...	1	...	...	6	4
Virginia, University of	2	...	...	...	2	...	...	...	...	...	4	2
Wake Forest College, N. C.	1	...	...	...	2	...	...	...	...	...	3	2
Washington and Jefferson College, Pa.	1	...	...	...	...	...	...	...	...	...	1	1
Washington, University of	...	1	...	...	1	...	...	...	...	...	2	1
Washington University, Mo.	1	...	...	...	...	...	...	...	...	...	1	1
Wesleyan University, Conn.	3	...	...	...	2	...	...	...	...	...	5	3
Wesleyan University of West Virginia	2	...	...	...	...	...	...	...	...	...	2	2
Westminster College, Mo.	1	...	...	...	...	...	...	...	...	...	1	1
West Virginia University	1	...	...	...	...	...	...	...	...	...	1	1
Wheaton College, Ill.	2	...	...	...	1	...	...	...	...	...	3	2
Willamette University, Ore.	1	...	...	...	...	...	...	...	...	...	1	1
Williams College, Mass.	7	...	...	...	2	...	...	...	...	...	9	7
Wisconsin, University of	1	1	...	...	1	...	...	...	...	...	3	2
Wooster, University of, O.	...	...	...	1	...	...	...	...	...	...	1	1
Worcester Polytechnic Institute, Mass.	...	1	...	...	...	...	...	...	...	...	1	1
Yale University, Conn.	7	...	...	1	...	...	...	...	...	...	8	8
Total	321	44	5	12	159	10	9	6	4	3		451
Non-Graduates and other Graduates (see note)												57
												508
Deduct for names counted twice or more than twice												99
												409

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* Besides the degrees enumerated above, the following were held by one or more persons each, as indicated: Agrégé-des-lettres, University of Paris, France; Lic.-ès-lettres, University of Caen, France; Diplôme d'études supérieures, and Agrégé-d'histoire et de géographie, University of Paris, France; Pd.B. (3), Michigan State Normal School, State Normal School, Warrensburg, Mo., and the New York State Normal College; B.Di. (2), Iowa State Normal School; M.Di. (2), Iowa State Normal School; B.A.S., Harvard University; M.E. (2), Brown University, R.I., and Massachusetts Institute of Technology. There were, further, in the School one graduate each of Andover Theological Seminary, Mass.; Newton Theological Institution, Mass.; and Reformed Theological Seminary, Pa. There were seven students from Japanese colleges and universities. There were two graduates of European gymnasia who had received no academic degree. There were thirty-one Harvard College Seniors on leave of absence; four other non-graduates of Harvard College; and one non-graduate of the Massachusetts Institute of Technology.

TABLE VIII. — COLLEGES AND UNIVERSITIES REPRESENTED BY FOUR OR MORE GRADUATES IN THE SCHOOL: 1901–02, 1902–03, 1903–04, 1904–05, 1905–06.

1901–02.		1902–03.		1903–04.		1904–05.		1905–06.	
Harvard,	189	Harvard,	174	Harvard,	232	Harvard,	192	Harvard,	197
Amherst,	8	Brown,	11	Amherst,	14	Ohio Wesleyan,	14	Brown,	12
Bowdoin,	8	Amherst,	10	Brown,	12	Dartmouth,	9	Ohio Wesleyan,	12
Brown,	8	Bowdoin,	7	Dartmouth,	12	Amherst,	8	Michigan,	10
California,	7	Dartmouth,	7	Michigan,	10	Williams,	8	Amherst,	8
Toronto,	6	Chicago,	7	Yale,	9	Brown,	7	Yale,	8
Dalhousie,	5	Michigan,	7	Ohio Wesleyan,	8	Yale,	6	Boston Univ.,	7
Dartmouth,	5	Columbia,	6	Bowdoin,	7	Boston Univ.,	5	Williams,	7
Ohio Wesleyan,	5	Leland Stanford Jr.,	6	Haverford,	7	Bowdoin,	5	Cornell Univ.,	6
Trinity (Conn.),	5	Northwestern,	6	Williams,	7	Cornell Univ.,	5	Dartmouth,	6
New Brunswick,	5	Tufts,	6	Tufts,	6	Haverford,	5	Haverford,	5
Missouri,	5	California,	6	West Virginia,	6	Leland Stanford Jr.,	5	Chicago,	4
Haverford,	4	Yale,	6	Boston Univ.,	5	State Univ. of Iowa,	5	Columbia,	4
Oberlin,	4	Haverford,	5	Columbia,	5	Michigan,	5	Dalhousie,	4
Princeton,	4	Ohio Wesleyan,	5	Texas,	5	Rochester,	5	Indiana,	4
Tufts,	4	Trinity (Conn.),	5	Leland Stanford Jr.,	4	Toronto,	5	Rochester,	4
Yale,	4	Texas,	5	Trinity (Conn.),	4	Bates,	4	Vanderbilt,	4
		Beloit,	4	California,	4	Missouri,	4		
		New York,	4	Pennsylvania,	4	Pennsylvania,	4		
		Williams,	4	Toronto,	4	Vanderbilt,	4		
		Wofford,	4	Wesleyan (Conn.),	4				
Total Membership,	315		325		427		395		409

TABLE IX. — BIRTHPLACES OF GRADUATE STUDENTS: 1898–1906.

	1898–99.	1899–1900.	1900–01.	1901–02.	1902–03.	1903–04.	1904–05.	1905–06.
Students born in the New England States	143	122	127	107	122	168	132	149
Students born in other Northern States east of the Mississippi River	106	119	136	109	108	141	142	135
Students born in Southern States east of the Mississippi River	15	17	16	11	14	31	21	20
Students born in States west of the Mississippi River . . .	30	34	30	39	39	35	42	44
Students born in the Dominion of Canada	25	23	21	22	16	17	19	24
Students born in other foreign countries	17	26	23	27	26	35	39	37
Total number of students	336	341	353	315	325	427	395	409
Percentage of students born in New England	43	36	36	34	38	39	33	37
Percentage of students born elsewhere	57	64	64	66	62	61	67	63

TABLE X. — RESIDENCES OF GRADUATE STUDENTS: 1902–1906.

	1902–03.	1903–04.	1904–05.	1905–06.
New England States	167	221	181	202
Northern States east of the Mississippi River .	88	120	125	128
Southern States east of the Mississippi River .	12	25	20	17
States west of the Mississippi River	40	38	44	35
Canada	12	13	10	12
Foreign countries	6	10	15	15
	325	427	395	409

Table XI shows the number of recommendations* for the higher degrees in 1904, 1905, and 1906. Table XII gives the number of recommendations for 1906, classified according to the Divisions and

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* The number of persons recommended each year, and that of the men who actually receive the degree, as published in the Annual Catalogue, do not always agree. Usually a few of the candidates recommended do not receive the degree at once. The degree is in these cases ordinarily conferred in a later year, "as of" the year in which the recommendation was made.

TABLE XI. — RECOMMENDATIONS FOR DEGREES IN 1904–06.

	1904.		1905.		1906.	
I. Graduate Students recommended for A.B.	3		2		1	
Graduate Students recommended for A.M.	113		106		85	
Graduate Students recommended for S.M.	3		4		3	
Graduate Students recommended for Ph.D.	44		38		44	
Graduate Students recommended for S.D.	1	164	0	150	0	133
II. College Seniors recommended for A.M.	0		0		1	
College Seniors of a preceding year, recommended for A.M. on work done in Senior year	36		26		15	
College Juniors of a preceding year, recommended for A.M. on work done in Junior year	0		0		1	
Professional students recommended for A.M. on special courses of study	15		10		16	
Professional students recommended for Ph.D. on special courses of study	2	53	1	37	2	35
Total of the above list		217		187		168
Deduct Graduate Students recommended for A.B.		3		2		1
Total number recommended for A.M., S.M., Ph.D., and S.D.		214		185		167
III. Harvard Bachelors of Arts or Science, not previously graduated elsewhere	95		78		63	
Harvard Bachelors of Arts or Science, previously graduated elsewhere	11		3		6	
Students not Harvard Bachelors of Arts or Science	108	214	104	185	98	167

Departments of the Faculty. The decrease in recommendations for the degree of Master of Arts, shown in Tables XI and XII, is brought about chiefly by two causes: the increase in the number of men who proceed directly to the Doctor's degree without taking an A.M. on the way, and the decline in the number of Harvard College Seniors who complete the requirements for the Master's degree.

TABLE XII. — DIVISIONS AND DEPARTMENTS IN WHICH RECOMMENDATIONS FOR THE HIGHER DEGREES WERE MADE IN 1906.

		DEGREES.			
DIVISION.	DEPARTMENT.	A.M.	S.M.	PH.D.	S.D.
I.	Semitic Languages and History	1	..	..	..
II.	Ancient Languages:				
	Indic Philology	..	..	1	..
	The Classics (Greek, Latin)	9	..	3	..
	Total in Ancient Languages	9	..	4	..

		DEGREES.			
DIVISION.	DEPARTMENT.	A.M.	S.M.	PH.D.	S.D.
III. Modern Languages:					
	English	15	..	5	..
	Germanic Languages and Literatures	6	..	3	..
	French, and other Romance Languages and Literatures	6	..	7	..
	In more than one Department	2	..	..	..
	Total in Modern Languages	— 29	— ..	— 15	— ..
IV. History and Political Science:					
	History and Government	18	..	1	..
	Political Economy	10	..	4	..
	Total in Hist. and Political Sci.	— 28	— ..	— 5	— ..
V. Philosophy		7	..	3	..
[Education		1]			
VI. The Fine Arts:					
	History and Principles of the Fine Arts	..	..	..	..
	Architecture	1	..	..	..
	Total in the Fine Arts	— 1	— ..	— ..	— ..
VII. Music		1	..	..	..
VIII. Mathematics		3	..	1	..
IX. Engineering		3	..	..	..
X. Physics		2	..	2	..
XI. Chemistry		9	2	3	..
XII. Biology:					
	Botany	2	..	2	..
	Zoölogy	1	1	7	..
	Total in Biology	— 3	— 1	— 9	— ..
XIII. Geology:					
	Geology and Geography	3	..	2	..
	Mineralogy and Petrography	..	..	..	..
	Mining and Metallurgy	..	..	..	..
	Total in Geology	— 3	— ..	— 2	— ..
XIV. Anthropology		1	..	..	..
In more than one Division		2	..	..	..
Professional Students:					
	Divinity School	10	..	2	..
	Law School	5	..	..	..
	Medical School	1	..	..	..
	Total	118	3	46	..

The degree of Doctor of Philosophy was conferred upon the forty-six men named below: with each name is indicated the special field in which the degree was taken, the candidate's academic history in brief, the subject of his thesis, and his present occupation.

Philology.

Frederic Willis Brown.
Romance Philology. — A.B. 1897, A.M. 1903. — Res. Gr. Stud., 1902–05.
Thesis: "An Historical Study of the Preterite Tense in Italian."
Instructor in French, Collegiate Department of Clark University.

Paul Gustav Adolf Busse.
Germanic Philology. — A.B. (*Northwestern Univ., Ill.*) 1900, A.M. (*ibid.*) 1900. — Res. Gr. Stud., 1902–03.
Thesis: "Grillparzer und die Politik."
Instructor in German, University of Wisconsin.

Walter Eugene Clark.
Indic and Classical Philology. — A.B. 1903, A.M. 1904. — Res. Gr. Stud., 1903–06.
Thesis: "Quid de Rebus Indicis scirent Graeci Prisci quaeritur."
Continuing his studies at Berlin, as Rogers Fellow.

Alfred Lester Coester.
Romance Philology. — A.B. 1896, A.M. 1906. — Res. Gr. Stud., Sept. 1904–Mar. 1905.
Thesis: "Compression in the Old Spanish Poema del Cid."
Teacher of Spanish, Brooklyn Commercial High School.

William Arnold Colwell.
Germanic Philology. — A.B. (*Denison Univ., O.*) 1899, A.M. (*Harvard Univ.*) 1902. — Res. Gr. Stud., 1901–06.
Thesis: "A Study of German Literature in England from 1750 to 1800."
Instructor in German at this University.

William Merriam Crane.
Semitic Philology. — A.B. 1902, S.T.B. 1904. — Res. Gr. in the Harvard Divinity School, 1905–06.
Thesis: "The History of the Figure of Christ."
Continuing his studies in Syria.

Fritz Sage Darrow.
Classical Archaeology. — A.B. 1903, A.M. 1904. — Gr. Stud., 1903–06.
Thesis: "The History of Corinth from Mummius to Herodes Atticus."
Professor of Greek, Dickinson College.

William Morton Dey.
Romance Philology. — A.B. (*Univ. of Virginia*) 1902, A.M. (*ibid.*) 1902, A.M. (*Harvard Univ.*) 1904. — Res. Gr. Stud., 1903–06.
Thesis: "The History of the Prefix *Por-* in Old French."
Assistant Professor of Romance Languages, University of Missouri.

John Glanville Gill.
Romance Philology. — A.B. (*Ottawa Univ., Kan.*) 1896, A.M. (*Harvard Univ.*) 1905. — Res. Gr. Stud., 1904–06.
Thesis: "Agglutination as a Process of Word Formation in Old French."
Tutor in Romance Languages, Columbia University.

Harrie Stuart Vedder Jones.
English Philology. — A.B. (*Coll. of Charleston, S.C.*) 1899, A.B. (*Harvard Univ.*) 1901, A.M. (*ibid.*) 1904. — Res. Gr. Stud., 1903–06.
Thesis: "Chaucer's Squire's Tale: An Investigation of the English Fragment, the Old French Cléomadès, and Analogous Folk-Tales."
Instructor in English, University of Illinois.

Percy Waldron Long.
English Philology. — A.B. 1898, A.M. 1900. — Res. Gr. Stud., 1899–1900 and 1901–03.
Thesis: "Courtly Love in the Reign of Queen Elizabeth."
Lecturer in English Literature, Bryn Mawr College.

Arthur Patch McKinlay.
Classical Philology. — A.B. (*Univ. of Oregon*) 1893, A.M. (*Harvard Univ.*) 1904. — Res. Gr. Stud., 1901–02 and 1903–06.
Thesis: "De Operibus Boethii Quaestiones Variae."
Instructor in Classics, University of Idaho.

Clarence King Moore.
Romance Philology. — A.B. 1897, A.M. 1898. — Res. Gr. Stud., 1897–98.
Thesis: "An Historical Study of the Spanish Preposition *á* with the Accusative Case."
Instructor in Romance Languages, University of Rochester.

William Charles Morro.
Biblical and Patristic Greek. — A.B. (*Kentucky Univ.*) 1898, A.M. (*ibid.*) 1903, S.T.B. (*Yale Univ.*) 1904. — Res. Gr. in the Harvard Divinity School, 1904–06.
Thesis: "Paul's Terms for Vices and Virtues."
Professor of Sacred History, College of the Bible, Kentucky University.

Gilbert Campbell Scoggin.
Indic Philology. — A.B. (*Vanderbilt Univ., Tenn.*) 1902, A.M. (*ibid.*) 1902. — Res. Gr. Stud., 1904–06.
Thesis: "Ancient Life in India as Depicted in the Jātaka."
Teacher of Greek, Hotchkiss School, Lakeville, Conn.

Stuart Pratt Sherman.
English Philology. — A.B. (*Williams Coll.*) 1903, A.M. (*Harvard Univ.*) 1904. — Res. Gr. Stud., 1903–06.
Thesis: "John Ford's Debt to his Predecessors and Contemporaries, and his Contribution to the Decadence of the Drama."
Instructor in English, Northwestern University.

Wilbur Owen Sypherd.
English Philology. — A.B. (*Delaware Coll.*) 1896, S.B. (*Univ. of Pennsylvania*) 1900, A.M. (*Harvard Univ.*) 1901. — Res. Gr. Stud., 1900–01 and 1903–06.
Thesis: "Studies in Chaucer's 'Hous of Fame.'"
Professor of English, Delaware College.

Robert Palfrey Utter.
English Philology. — A.B. 1898. — Res. Gr. Stud., 1903–06.
Thesis: "Studies in the Origins of the English Novel."
Instructor in English, Amherst College.

Herbert Hunter Vaughan.
Romance Philology. — A.B. (*Univ. of Michigan*) 1903. — Res. Gr. Stud., 1903–05.
Thesis: "The Language of Il Fiore."
Acting Assistant Professor of Romance Languages, University of Kansas.

Hermann Julius Weber.
Germanic Philology.—Gr., *Johannine Gymnasium, Hamburg, Germany*, 1886. — Res. Gr. Stud., 1902–05.
Thesis: "Studien zur Bedeutungslehre im Sprachgebrauche Winckelmanns."
Continuing his studies in Germany, as John Harvard Fellow.

Casimir Douglass Zdanowicz.
Romance Philology. — A.B. (*Vanderbilt Univ., Tenn.*) 1903, A.M. (*Harvard Univ.*) 1905. — Res. Gr. Stud., 1903–06.
Thesis: "Greek Proper Names in Old French."
Continuing his studies at Paris, as Harris Fellow.

Philosophy.

Albert Francis Buck.
Logic. — A.B. (*Amherst Coll.*) 1890, A.M. (*Harvard Univ.*) 1894. — Res. Gr. Stud., Feb.–June, 1892, and 1893–95.
Thesis: "The Concept of Quantitative Equality."
Residing at Stoneham, Mass.

Morris Raphael Cohen.
Ethics. — S.B. (*Coll. of the City of New York*) 1900. — Res. Gr. Stud., 1904–06.
Thesis: "Kant's Doctrine as to the Relation between Duty and Happiness."
Tutor in Philosophy, College of the City of New York.

Benjamin Apthorp Gould Fuller.
History of Philosophy. — A.B. 1900, A.M. 1902, B.SC. (*Univ. of Oxford, England*) 1905. — Gr. Stud., 1900–02 and 1904–06.
Thesis: "The Problem of Evil in Plotinus."
Assistant in Philosophy at this University.

Mathematics.

William Henry Roever.
Geometry. — S.B. (*Washington Univ., Mo.*) 1897, A.M. (*Harvard Univ.*) 1904. — Res. Gr. Stud., 1897–98, 1901–02, and 1903–05.
Thesis: "Brilliant Points."
Instructor in Mathematics, Massachusetts Institute of Technology.

History.

Charles Edmund Fryer.
English History. — PH.B. (*Univ. of California*) 1899, LITT.M. (*ibid.*) 1901, A.M. (*Harvard Univ.*) 1902. — Res. Gr. Stud., 1901–03.
Thesis: "Political Opposition to English Church Establishment: A Statistical and Sectional View."
Lecturer on History, McGill University.

Economics.

Stuart Daggett.
Transportation. — A.B. 1903, A.M. 1904. — Res. Gr. Stud., 1903–04.
Thesis: "Railroad Reorganization."
Instructor in Economics at this University.

Joseph Clarence Hemmeon.
Sociology. — A.B. (*Acadia Univ., N.S.*) 1898, A.M. (*ibid.*) 1903, A.M. (*Harvard Univ.*) 1904. — Res. Gr. Stud., 1903–06.
Thesis: "The Organization and Development of the British Post Office to 1840."
Instructor in Economics, University of Illinois.

George Randall Lewis.
Economic History. — A.B. 1902. — Gr. Stud., 1902–06.
Thesis: "The Stannaries: A Study of the Rise and Development of the Early English Miner."
Austin Teaching Fellow in Economics at this University.

Chester Whitney Wright.
Economic History. — A.B. 1901, A.M. 1902. — Res. Gr. Stud., 1902–04.
Thesis: "The Economic History of Wool Growing in the United States to 1860."
Instructor in Economics, Cornell University.

Physics.

Harvey Nathaniel Davis.
Mathematical Physics. — A.B. (*Brown Univ., R.I.*) 1901, A.M. (*ibid.*) 1902, A.M. (*Harvard Univ.*) 1903. — Res. Gr. Stud., 1902–06.
Thesis: I. "A *PQ* Plane for Thermodynamic Cyclic Analysis." II. "The Longitudinal Vibrations of a Rubbed String."
Instructor in Physics at this University.

Alpheus Wilson Smith.
Heat. — A.B. (*West Virginia Univ.*) 1900, A.M. (*Harvard Univ.*) 1903. — Res. Gr. Stud., 1902–Feb. 1906.
Thesis: "Expansion and Compressibility of Ether and of Alcohol in the Neighborhoods of their Boiling Points."
Instructor in Physics, Haverford College.

Chemistry.

Murray Arnold Hines.
Inorganic Chemistry. — A.B. (*St. Lawrence Univ., N.Y.*) 1899, A.M. (*ibid.*) 1901, A.B. (*Harvard Univ.*) 1901, A.M. (*ibid.*) 1903. — Res. Gr. Stud., 1901–04 and 1905–06.
Thesis: "A Revision of the Atomic Weight of Manganese."
Chemist, Mallinckrodt Chemical Co., St. Louis, Mo.

Burritt Samuel Lacy.
Physical Chemistry. — A.B. 1903, A.M. 1904. — Res. Gr. Stud., 1903–06.
Thesis: "Temperature Coefficients of Concentration Cells and of Electrodes and the Thomson Effect in Electrolytes."
Continuing his studies at Carlsruhe, as Parker Fellow.

Robert Dawson MacLaurin.
Organic Chemistry. — A.B. (*McMaster Univ., Ont.*) 1902, A.M. (*ibid.*) 1903. — Res. Gr. Stud., 1903–06.
Thesis: "Derivatives of Substituted Orthobenzoquinones."
Research Fellow, Rockefeller Institute for Medical Research, New York City.

Biology.

Henry Bryant Bigelow.
Zoölogy. — A.B. 1901, A.M. 1903. — Res. Gr. Stud., 1902–04 and 1905–06.
Thesis: "Studies on the Nuclear Cycle of Gonionemus murbachii Mayer."
Assistant in the Museum of Comparative Zoölogy at this University.

Leon Jacob Cole.
Zoölogy. — A.B. (*Univ. of Michigan*) 1901. — Res. Gr. Stud., 1902–06.
Thesis: "An Experimental Study of the Image-Forming Powers of Various Types of Eyes."
Chief of the Division of Animal Breeding and Pathology, Rhode Island Agricultural Experiment Station.

Arthur Day Howard.
Zoölogy. — S.B. (*Amherst Coll.*) 1898, S.M. (*Northwestern Univ., Ill.*) 1901. — Res. Gr. Stud., 1902–05.
Thesis: "The Visual Cells in Vertebrates, chiefly in Necturus Maculosus."
Instructor in Biology, Westminster College, Pa.

George Richard Lyman.
Botany. — A.B. (*Beloit Coll., Wis.*) 1894, A.B. (*Harvard Univ.*) 1897, A.M. (*ibid.*) 1899. —Res. Gr. Stud., 1896–1901.
Thesis: "Culture Studies of Hymenomycetes."
Assistant Professor of Biology (Botany), Dartmouth College.

John Hancock McClellan.
Zoölogy. — A.B. (*Univ. of Michigan*) 1897, A.M. (*ibid.*) 1899. —Res. Gr. Stud., 1903–06.
Thesis: "The Development of the Excretory System of Amia calva."
Continuing his studies at Berlin, as Parker Fellow.

Hansford MacCurdy.
Zoölogy. — A.B. (*Ohio Wesleyan Univ.*) 1895, A.M. (*Harvard Univ.*) 1905. — Res. Gr. Stud., 1904–06.
Thesis: "The Influence of Selection on Color Pattern in Guinea Pigs and Rats."
Professor of Biology and Geology, Alma College.

Samuel Ottmar Mast.
Zoölogy. — S.B. (*Univ. of Michigan*) 1899. — Res. Gr. Stud., 1903–04.
Thesis: "Light Reactions in Lower Organisms: I. Stentor Coeruleus."
Professor of Biological Science, Hope College.

Lincoln Ware Riddle.
Botany. — A.B. 1902, A.M. 1905. — Res. Gr. Stud., 1903–06.
Thesis: "Contributions to the Cytology of the Entomophthoraceae."
Instructor in Botany, Wellesley College.

Herbert Eugene Walter.
Zoölogy.— A.B. (*Bates Coll., Me.*) 1892, A.M. (*Brown Univ., R.I.*) 1893. — Res. Gr. Stud., 1903–06.
Thesis: "The Reactions of Planarians to Light."
Assistant Professor of Comparative Anatomy, Brown University.

Geology.

James Walter Goldthwait.
General Geology. — A.B. 1902, A.M. 1903. — Res. Gr. Stud., 1902–04.
Thesis: "The Abandoned Shore Lines of Eastern Wisconsin."
Assistant Professor of Geology, Northwestern University.

George Rogers Mansfield.
General Geology. — S.B. (*Amherst Coll.*) 1897, A.M. (*ibid.*) 1903. — Res. Gr. Stud., 1903–05.
Thesis: "The Origin and Structure of the Roxbury Conglomerate."
Instructor in Geology at this University.

Tables XIII and XIV relate to the age of men recommended for degrees, and show the continued attractiveness of the degrees offered by the School, not merely to young men fresh from college, but to teachers of maturity and experience. Table XV presents the usual statistics as to the assignment of fellowships and scholarships. The number of applications — 323 — shows more than a recovery from the small loss of the preceding year.

TABLE XIII. — AGE OF GRADUATE STUDENTS RECOMMENDED FOR THE DEGREES OF MASTER OF ARTS, MASTER OF SCIENCE, AND DOCTOR OF PHILOSOPHY: 1906.*

	20	21	22	23	24	25	26	27	28–34	35–39	40 or over	Total.
A.M.'s . . .	2	6	5	11	10	8	10	5	21	5	1	84
S.M.'s . . .	. .	. .	1	1	. .	. .	. .	. .	1	. .	. . .	3
Ph.D.'s . . .	. .	. .	1	. .	4	6	3	6	19	5	. . .	44

* Men recommended for "as of" degrees are not included.

TABLE XIV. — AGE OF GRADUATE STUDENTS RECOMMENDED FOR THE DEGREE OF DOCTOR OF PHILOSOPHY: 1897–1906.

	22	23	24	25	26	27	28 or over.	Average age of men 27 or under.	Percentage of men 28 or older.
1897	. .	. .	3	1	4	2	15	25.5	60
1898	1	. .	1	4	2	2	15	25.2	60
1899	1	4	2	3	2	1	8	24.3	38
1900	. .	2	3	4	2	6	18	25.4	51
1901	. .	. .	1	3	5	3	17	25.8	59
1902	. .	1	2	3	4	2	16	25.3	57
1903	. .	. .	2	4	3	3	16	25.6	58
1904	. .	. .	4	4	7	5	24	26.1	55
1905	. .	3	1	5	7	5	17	26	45
1906	1	. .	4	6	3	6	24	25.9	55

TABLE XV. — FELLOWSHIPS AND SCHOLARSHIPS (1904–07).

1. *Applications and Appointments.*

	1904–05.		1905–06.		1906–07.	
Spring applicants for reappointment or promotion	51		46		57	
Spring applicants for a first appointment	207		211		222	
Later applicants	58	316	44	301	44	323
Appointed to fellowships	22		21		27	
Appointed to scholarships	59		54		61	
Appointed instructors, teaching fellows, or assistants	22	103	25	100	28	116
Deduct for repetitions		4		2		7
		99		98		109
Entered or continued in the Graduate School of Arts and Sciences without receiving any of the above-named appointments	73		38		50	
Entered undergraduate classes of Harvard College	0		1		2	
Entered other Departments of the University	2	75	1	40	3	55
Applicants who were at the University in the year following their applications		174		138		164
Applicants not at the University in that year		142		163		159
		316		301		323

2. *Classification of Applicants and Appointees.*

	1904–05.		1905–06.		1906–07.	
	Applicants.	Appointees.	Applicants.	Appointees.	Applicants.	Appointees.
Students of Philology	138	23	122	25	124	28
Students of Philosophy, History, or Political Science	92	29	85	21	105	28
Students of Mathematics, Physics, and Chemistry	51	17	61	15	62	15
Students of Natural History	28	8	25	11	22	10
Students of other branches, or unclassified	7	4	8	3	10	7
	316	81	301	75	323	88
Students in Graduate School of Arts and Sciences	108	42	99	50	103	45
Students in Harvard College	25	6	19	3	23	5
Students in other Departments of the University	11	5	3	2	6	2
Former students in some Department of the University	23	5	26	2	31	12
Persons never previously members of the University	149	23	154	18	160	24
	316	81	301	75	323	88
Harvard Bachelors of Arts or Science, not previously graduated elsewhere	32	12	36	16	39	18
Harvard Bachelors of Arts or Science, previously graduated elsewhere	13	2	14	3	8	3
Graduates of other institutions, not Harvard Bachelors of Arts or Science	219	56	209	50	220	58
Undergraduates of Harvard College or Lawrence Scientific School, not already graduated elsewhere	28	9	22	5	29	8
Undergraduates of other institutions and other non-graduates	24	2	20	1	27	1
	316	81	301	75	323	88

The names of the holders of fellowships for last year and for the current year (with their present occupation and residence) follow.

Harris Fellowship (1868).

1905–06.	1906–07.
David Brainerd Spooner. A.B. (*Leland Stanford Jr. Univ., Cal.*) 1899, PH.D. (*Harvard Univ.*) 1905. — Non-Res. Stud., 1902–04 and 1905–06; Res. Gr. Stud., 1904–05. — Travelling Fellow in Indic Philology, 1902–04; Christopher M. Weld Scholar, 1904–05. — Student of Indic Philology, at Berlin. Director of the Archaeological Survey of India, Northwest Frontier Provinces.	**Casimir Douglass Zdanowicz.** A.B. (*Vanderbilt Univ., Tenn.*) 1903, A.M. (*Harvard Univ.*) 1905, PH.D. (*ibid.*) 1906. — Res. Gr. Stud., 1903–06. — Townsend Scholar, 1905–06. Student of Romance Languages, at Paris.

Rogers Fellowships (1869).

Arthur Stanley Pease. A.B. 1902, A.M. 1903, PH.D. 1905. — Res. Gr. Stud., 1902–05; Non-Res. Stud., 1905–06. — Charles Haven Goodwin Scholar, 1902–03; Edward Austin Fellow, 1904–05. — Student of Classical Philology, in Europe. Instructor in Latin at this University.	**Walter Eugene Clark.** A.B. 1903, A.M. 1904, PH.D. 1906. — Res. Gr. Stud., 1903–06. — Shattuck Scholar, 1903–04. Student of Indic Philology, at Berlin.
Herbert Thomas Poland. A.B. 1903, A.M. 1904. — Res. Gr. Stud., 1903–05; Non-Res. Stud., 1905–06. — Edward Austin Fellow, 1904–05. — Student of Celtic, in Europe. Died at Rennes, France, March 2, 1906.	**Walter James Shepard.** (See Parker Fellowships, 1905–06.)

Parker Fellowships (1873).

George Randall Lewis. A.B. 1902, PH.D. 1906. — Res. Gr. Stud., 1902–04; Non-Res. Stud., 1904–06. — Henry Lee Memorial Fellow, 1903–04; Rogers Fellow, 1904–05. — Student of Economics, in London. Austin Teaching Fellow in Economics at this University.	**Leroy Albert Howland.** A.B. (*Wesleyan Univ., Conn.*) 1900, A.M. (*Harvard Univ.*) 1904. — Res. Gr. Stud., 1903–05. — Shattuck Scholar, 1904–05. Student of Mathematics, at Munich.
Walter James Shepard. A.B. (*Willamette Univ., Ore.*) 1900, A.B. (*Harvard Univ.*) 1902. — Res. Gr. Stud., 1903–05; Non-Res. Stud., 1905–06. — Austin Teaching Fellow in History, 1903–05. — Student of History, at Heidelberg. Continuing his studies at London, as Rogers Fellow.	**Burritt Samuel Lacy.** (See John Harvard Fellowships, 1905–06.)
Elijah Swift. A.B. 1903, A.M. 1904. — Res. Gr. Stud., 1903–04; Non-Res. Stud., 1904–06. — Shattuck Scholar, 1903–04; Harris Fellow, 1904–05. — Student of Mathematics, at Göttingen. Continuing his studies at Göttingen, as John Harvard Fellow.	**John Hancock McClellan.** A.B. (*Univ. of Michigan*) 1897, A.M. (*ibid.*) 1899, PH.D. (*Harvard Univ.*) 1906. — Res. Gr. Stud., 1903–06. — Virginia Barret Gibbs Scholar, 1903–05. Student of Zoölogy, at Berlin.

John Thornton Kirkland Fellowship (1873).

Dean Putnam Lockwood. A.B. 1903, A.M. 1904. — Res. Gr. Stud., 1903–05; Non-Res. Stud., 1905–06. — Charles Haven Goodwin Scholar, 1903–05. — Student of Classical Philology, at Munich. Continuing his studies at this University.	**Harry Louis Gideon.** A.B. (*Louisville Male High School, Ky.*) 1895, A.M. (*Harvard Univ.*) 1906. — Res. Gr. Stud., 1905–06. — University Scholar, 1905–06. Student of Music, at Paris.

James Walker Fellowship (1881).

1905-06.	1906-07.
Clement Leslie Vaughan. A.B. (*Acadia Univ., N.S.*) 1898, A.B. (*Harvard Univ.*) 1903, PH.D. (*ibid.*) 1905. — Res. Gr. Stud., 1903-05; Non-Res. Stud., 1905-06. — University Scholar, 1903-04; Townsend Scholar, 1904-05. — Assistant in Philosophy, 1904-05. — Student of Philosophy, at Berlin. Continuing his studies at Berlin.	Horace Meyer Kallen. A.B. 1903. — Res. Gr. Stud., 1905-06. Student of Philosophy at this University.

John Tyndall Scholarship (1885).

Percy Williams Bridgman. A.B. 1904, A.M. 1905. — Res. Gr. Stud., 1904-06. — Whiting Fellow, 1904-06. — Student of Physics at this University. Continuing his studies at this University, as John Tyndall Scholar.	Percy Williams Bridgman. *Reappointed.*

Robert Treat Paine Fellowship (1887).

James Ford. A.B. 1905. — Res. Gr. Stud., 1904-06. — Student of Social Science at this University. Continuing his studies at Paris, as Robert Treat Paine Fellow.	James Ford. *Reappointed.*

Henry Lee Memorial Fellowship (1889).

Charles Phillips Huse. A.B. 1904, A.M. 1905. — Res. Gr. Stud., 1904-06. — University Scholar, 1904-05. — Student of Economics at this University. Assistant in Economics and Graduate Student at this University.	Walter Wallace McLaren. A.M. (*Queen's Univ., Ont.*) 1899, S.T.B. (*ibid.*) 1902. — Res. Gr. Stud., 1905-06. — Gorham Thomas Scholar, 1905-06. Student of Economics at this University.

Ozias Goodwin Memorial Fellowship (1889).

William Oscar Scroggs. S.B. (*Alabama Polytechnic Institute*) 1899, S.M. (*ibid.*) 1900, A.M. (*Harvard Univ.*) 1905. — Res. Gr. Stud., 1904-06. — University Scholar, 1904-05. — Student of History and Government at this University. Continuing his studies at this University, as Edward Austin Fellow.	Clarence Perkins. A.B. (*Syracuse Univ., N.Y.*) 1901, A.M. (*Harvard Univ.*) 1904. — Res. Gr. Stud., 1903-06. — Thayer Scholar, 1904-05; Edward Austin Fellow, 1905-06. Student of History and Government, at London.

Henry Bromfield Rogers Memorial Fellowship (1889).

(Not assigned.)	Charles Edward Persons. A.B. (*Cornell Coll., Ia.*) 1903, A.M. (*Harvard Univ.*) 1905. — Res. Gr. Stud., 1904-06. Student of Economics at this University.

Hemenway Fellowship (1891).

Vilhjálmur Stefánsson. *Reappointed.* A.B. (*State Univ. of Iowa*) 1903. — Special Div. Stud., 1903-04; Res. Gr. Stud., 1904-06. — Student of Anthropology at this University. Engaged in anthropological investigations among the Arctic Esquimaux.	(Not assigned.)

John Harvard Fellowships (1895).

1905-06.	1906-07.
James Alfred Field. A.B. 1903. — Res. Gr. Stud., 1903–05; Non-Res. Stud., 1905–06. — Assistant in Economics, 1903–04; Austin Teaching Fellow in Economics, 1904–05. — Student of Economics, at Berlin. Instructor in Economics at this University.	**George Shannon Forbes.** A.B. 1902, A.M. 1904, PH.D. 1905. — Res. Gr. Stud., 1902–05. — Assistant in Chemistry, 1900–04; Austin Teaching Fellow in Physical Chemistry, 1904–05; Lecturer on Physical Chemistry, 1905–06. Student of Chemistry, at Leipsic.
Burritt Samuel Lacy. A.B. 1903, A.M. 1904, PH.D. 1906. — Res. Gr. Stud., 1903–06. — Assistant in Chemistry, 1903–06. — Student of Chemistry and Assistant in Chemistry at this University. Continuing his studies at Carlsruhe, as Parker Fellow.	**Elijah Swift.** (See Parker Fellowships, 1905–06.)
John Christian Ransmeier. PH.B. (*Northwestern Univ., Ill.*) 1894, A.M. (*Harvard Univ.*) 1898, PH.D. (*ibid.*) 1901. — Res. Gr. Stud., 1897–1901; Non-Res. Stud., 1905–06. — Thayer Scholar, 1898–99; Shattuck Scholar, 1899–1900; Morgan Fellow, 1900–01. — Assistant in German, 1899–1900. — Student of Germanic Philology, at Berlin. Continuing his studies at Berlin.	**Alexander Mackenzie Thompson.** *Reappointed.*
Alexander Mackenzie Thompson. A.M. (*Queen's Univ., Ont.*) 1902, A.B. (*Harvard Univ.*) 1903, A.M. (*ibid.*) 1904. — Res. Gr. Stud., 1903–05; Non-Res. Stud., 1905–06. — Student of Classical Philology, at Paris. Continuing his studies at this University as John Harvard Fellow.	**Charles Hansen Toll.** A.B. (*Hamilton Coll., N. Y.*) 1904, A.M. (*Harvard Univ.*) 1905. — Res. Gr. Stud., 1904–06. Student of Philosophy, in India.
Charles Marshall Underwood, Jr. A.B. 1900, A.M. 1901, PH.D. 1905. — Res. Gr. Stud., 1900–01 and 1903–05; Non-Res. Stud., 1905–06. — Austin Scholar, 1903–04. — Austin Teaching Fellow in Romance Languages, 1900–01 and 1904–05. — Student of Romance Languages, and Fellow of the Ministry of Public Instruction of the French Republic, at Paris. Instructor in French and Italian, University of Cincinnati.	**Hermann Julius Weber.** Gr., *Johannine Gymnasium, Hamburg, Germany*, 1886, PH.D. (*Harvard Univ.*) 1906. — Res. Gr. Stud., 1902–05. — Austin Teaching Fellow in German, 1903–04; Instructor in German, 1904–06. Student of Germanic Philology, in Europe.
	Arthur Fisher Whittem. A.B. 1902, A.M. 1903. — Res. Gr. Stud., 1902–04. — Austin Teaching Fellow in Romance Languages, 1902–04; Instructor in Romance Languages, 1904–06. Student of Romance Languages, and Fellow of the Ministry of Public Instruction of the French Republic, at Paris.

Whiting Fellowships (1895).

Conrad Louis Benoni Shuddemagen. S.B. (*Univ. of Texas*) 1902, S.M. (*ibid.*) 1904. — Res. Gr. Stud., 1904–06. — Thayer Scholar, 1904–05. — Student of Physics at this University. Continuing his studies at this University, as Whiting Fellow.	**Conrad Louis Benoni Shuddemagen.** *Reappointed.*
Alpheus Wilson Smith. *Reappointed.* A.B. (*West Virginia Univ.*) 1900, A.M. (*Harvard Univ.*) 1903, PH.D. (*ibid.*) 1906. — Res. Gr. Stud., 1902–06. — Student of Physics at this University. Instructor in Physics, Haverford College.	**William Bell Cartmel.** S.B. (*Case School of Applied Science, O.*) 1900, A.M. (*Univ. of Nebraska*) 1902. Student of Physics at this University.

1905–06. **1906–07.**

South End House Fellowship (1900).

JOHN DANIELS.
Reappointed.
A.B. 1903, A.M. 1904. — Res. Gr. Stud., 1903–06. — Student of Sociology, at this University.
Corresponding Secretary, Congo Reform Association.

EUGENE LLOYD SHELDON.
A.B. 1906.
Student of Sociology at this University.

Charles Eliot Norton Fellowship (1900).

JAMES SAMUEL MARTIN.
A.B. (*Washington Univ., Mo.*) 1904, A.M. (*Harvard Univ.*) 1905. — Res. Gr. Stud., 1904–05; Non-Res. Stud., 1905–06. — Student of Classical Archaeology, in Athens.
Continuing his studies at Athens.

KENDALL KERFOOT SMITH.
A.B. 1904, A.M. 1906. — Res. Gr. Stud., 1904–06. — Assistant in Fine Arts, 1904–05. — Charles Haven Goodwin Scholar, 1905–06.
Student of Classical Archaeology, in Athens.

Edward Austin Fellowships (1900).

ARTHUR MANGUN BANTA.
A.B. (*Indiana Univ.*) 1903, A.M. (*ibid.*) 1904. — Res. Gr. Stud., 1905–06. — Student of Zoölogy, at this University.
Austin Teaching Fellow in Zoölogy at this University.

LAWRENCE MARTIN.
A.B. (*Cornell Univ., N. Y.*) 1904. — Student of Geology at this University.
Instructor in Physiography, University of Wisconsin.

CLARENCE PERKINS.
A.B. (*Syracuse Univ., N. Y.*) 1901, A.M. (*Harvard Univ.*) 1904. — Res. Gr. Stud., 1903–06. — Thayer Scholar, 1904–05. — Student of History at this University.
Continuing his studies at London, as Ozias Goodwin Memorial Fellow.

CHARLES IRVING WOOD.
A.B. (*Williams Coll.*) 1903, A.M. (*Harvard Univ.*) 1904. — Res. Gr. Stud., 1903–06. — Shattuck Scholar, 1904–05. — Student of German at this University.
Present occupation and address unknown.

JOSEPH WARREN BEACH.
A.B. (*Univ. of Minnesota*) 1900, A.M. (*Harvard Univ.*) 1902. — Res. Gr. Stud., 1901–02 and 1904–06. — Shattuck Scholar, 1905–06.
Student of English at this University.

WILLIAM OSCAR SCROGGS.
(See Ozias Goodwin Memorial Fellowship, 1905–06.)

RALPH EDWARD SHELDON.
A.B. (*Cornell Univ., N. Y.*) 1904, A.M. (*ibid.*) 1905.
Student of Zoölogy at this University.

KARL YOUNG.
A.B. (*Univ. of Michigan*) 1901, A.M. (*Harvard Univ.*) 1902. — Res. Gr. Stud., 1901–03 and 1905–06.
Student of English at this University.

Nelson Robinson Jr. Fellowship (1902).

(Not assigned.)

ALEXANDER EDWARD HOYLE.
A.B. 1902, A.M. 1903, S.B. 1904. — Res. Gr. Stud., 1902–03.
Student of Architecture, in Europe.

Fellowship of the Cercle Français de l'Université Harvard (1903).

MÉDÉRIC TOURNEUR.
B.-ès-lettres (*Univ. of Caen, France*) 1898, Lic.-ès-lettres (*ibid.*) 1900, Diplôme d'études supérieures (*Univ. of Paris, France*) 1902, Agrégé-d'histoire et de géographie (*ibid.*) 1905. — Student of Ancient History and Archaeology at this University.
Present occupation and address unknown.

EDMOND JEAN EGGLI.
B.-ès-lettres (*Univ. of Lyons, France*) 1899, Lic.-ès-lettres (*Univ. of Paris, France*) 1902, Agrégé-des-lettres (*ibid.*) 1906.
Student of Comparative Literature at this University.

Julia Amory Appleton Fellowship (1904).

HARRY EDWARD WARREN.
S.B. 1904, S.M. 1905. — Res. Gr. Stud., 1904–05. — Non-Res. Stud., 1905–06. — Austin Scholar in Architecture, 1904–05. — Student of Architecture, in Rome.
Continuing his studies in Europe, as Julia Amory Appleton Fellow.

HARRY EDWARD WARREN.
Reappointed.

1905–06.	**1906–07.**

Edward William Hooper Fellowship (1905).

(There are two appointments on this foundation for the current year.)

1905–06.	1906–07.
	ELLSWORTH HUNTINGTON. A.B. (*Beloit Coll., Wis.*) 1897, A.M. (*Harvard Univ.*) 1902. — Res. Gr. Stud., 1901–03. — Townsend Scholar, 1901–02; Thayer Scholar, 1902–03. Now preparing for publication the results of his geographical explorations in Central Asia.
	JOHN TUCKER MURRAY. A.B. (*Dalhousie Univ., N.S.*) 1897, A.B. (*Harvard Univ.*) 1899, A.M. (*ibid.*) 1900. — Res. Gr. Stud., 1899–1900 and 1904–06. — George and Martha Derby Scholar, 1904–05. — Instructor in English, 1905–06. Student of English, at London.

Francis Parkman Fellowship (1906).

1905–06.	1906–07.
	ABBOTT PAYSON USHER. A.B. 1904, A.M. 1905. — Res. Gr. Stud., 1904–06. — Assistant in Government, 1905–06. Student of History, at Paris.

The Graduate School of Arts and Sciences now has an adequate supply of fellowships, both for resident and for non-resident study. Furthermore, the experience of the past indicates that their number is likely to continue to increase at a rate fairly commensurate with the needs of the School. The present and pressing want of the School is a very large addition to the provision of scholarships, and particularly of small scholarships. A comparatively slight margin of expense annually turns from us to other institutions a large number of Graduate students of marked ability and most earnest purpose, whose connection with Harvard would be highly creditable and advantageous to the University. The number of cases of this kind which comes to the attention of the Secretary is very considerable; and there are presumably many others of which he knows nothing.

Table XVI gives the recommendations for the higher degrees in 1906 in arts, pure science, applied science, graduate professional studies, and ordinary professional studies. The granting of the degree of Master of Arts on ordinary professional studies is an anomaly, not contemplated in the Standing Votes under which the higher degrees were first established at Harvard, and without parallel in the usage of any other American university with developed graduate instruction. There appears to be no sufficient reason why the practice should be longer continued.

TABLE XVI. — RECOMMENDATIONS FOR THE HIGHER DEGREES IN ARTS, PURE SCIENCE, APPLIED SCIENCE, AND PROFESSIONAL STUDIES: 1906.

	A.M.	S.M.	PH.D.	S.D.	Total.
Arts	76	..	27	..	103
Pure Science	21	3	17	..	41
Applied Science	5	..	..	..	5
Graduate Professional Studies	5	..	2	..	7
Ordinary Professional Studies	11	..	..	..	11
Total	118	3	46	..	167

The annual reception for the students of the School for the current year was held on Thursday evening, October 4, in the Faculty Room. The principal address was by Professor Kuno Francke, on "The Study of National Culture." Briefer addresses were made by Professor Kennelly, by Professor Eugen Kühnemann, of Breslau, Visiting Professor at this University, and by President Eliot.

JOHN HENRY WRIGHT, *Dean.*

THE DIVINITY SCHOOL.

To the President of the University: —

Sir, — As Dean of the Divinity School I have the honor to present the following report for the year 1905–06.

The Dean was absent in Germany during the first term. With this exception the entire staff was in service throughout the year. Assistant Professor Hale, who has for eighteen years directed a large part of the instruction in Homiletics, and has endeared himself both to colleagues and students, withdrew from the service of the School at the end of the year, his resignation to take effect September 1, 1906.

The interchange of instruction between the Faculty of the School and the Faculty of Arts and Sciences indicates the extent of the contribution made by the Divinity School to the general work of the University. This interchange between the two Faculties in 1905–06 was as follows: —

Divinity students taking courses offered by the Faculty of Arts and Sciences, 1905–06: —

Semitic	5	elections.
English	1	"
German	1	"
Economics	4	"
Philosophy	29	"
Social Ethics	4	"
Mathematics	1	"
	45	

Non-Divinity students electing courses offered by the Divinity School, 1905–06: —

Old Testament	52	elections.
New Testament	8	"
Church History	57	"
History of Religions	61	"
Theology	11	"
Ethics	158	"
	347	"

The registration for the year was 42, as against 43 in 1904–05. The 42 students enrolled in the year 1905–06 were distributed as follows: —

Resident Graduates	14
Senior Class	7
Middle Class	5
Junior Class	10
Special Students	6
Total	42

Twenty-five colleges were represented as follows: —

Amherst College	1
Brown University	2
University of Buffalo	1
University of Chicago	1
Cornell University	1
Dartmouth College	2
Eureka College	2
Furman University	1
Geneva College	1
Hampden-Sidney College	1
Harvard University	10
Hiram College	1
Iowa College	1
Kentucky University	1
Leland Stanford Jr. University	1
University of North Carolina	1
Oberlin College	2
Ohio Wesleyan University	3
Queen's University	1
University of Rochester	1
Texas Christian University	1
Trinity College, Conn.	1
Union College, Ky.	1
Westminster College, Pa.	1
Williams College	1
	40
Counted more than once	2
	38

Twelve theological seminaries were represented as follows: —

Allegheny Theological Seminary	1
Allegheny Reformed Presbyterian Theological Seminary	1
Andover Theological Seminary	2
College of the Bible, Ky.	1
Boston University	4
Chicago Theological Seminary	1
Concordia Theological Seminary	1
Episcopal Theological Seminary, Cambridge	1
Harvard University	3
Queen's University	1
Rochester Theological Seminary	1
Yale University	1
	18
Counted more than once	2
	16

Six members of the School received the degree of S. T. B., ten the degree of A. M., and two the degree of Ph.D.

The degree of A.M. was also conferred upon one person for work done in the Divinity School prior to 1900.

The Summer School of Theology was, by vote of the Faculty, put on a more permanent basis by an arrangement for three years: one session to be devoted to Problems of Theology, a second to Problems of Social Ethics, and a third to the History of Religion. The first session of the series — and the eighth session of the School — was held from July 9 to July 21, the forty-five lectures being devoted to the subject of Christian Theology in its Origin and Development.

The eight sessions of the School have had the following record of attendance: —

	Men.	Women.	Total.
1899	96	9	105
1900	52	2	54
1901	84	5	89
1902	74	4	78
1903	54	4	58
1904	46	1	47
1905	54	7	61
1906	59	9	68

The distribution by denomination, in the case of ministers attending in the eight years, was as follows: —

	Orthodox Congregational.	Unitarian Congregational.	Episcopalian.	Universalist.	Baptist.	Presbyterian.	Disciples.	Methodist.	Free Baptist.	Lutheran.	Christian Connection.	German Reformed.	Moravian.	Evangelical Association.	Dutch Reformed.	Jewish.
1899	27	17	16	14	5	3	..	..	..	..	..	..	..	..	..	..
1900	17	6	3	14	6	..	3	3	..	..	..	..	..	..	..	..
1901	28	12	11	14	5	2	..	10	1	1	..	..	..	..	..	..
1902	28	7	15	3	5	1	1	8	1	1	..	..	..	..	..	..
1903	21	4	10	5	..	5	3	1	1	..	1	1	1	..	..	..
1904	13	6	11	1	7	1	..	3	1	..	1	..	..	1	..	..
1905	7	4	14	3	5	1	5	9	..	..	1	3	..	..	1	.
1906	8	7	16	2	3	3	2	5	..	1	..	5	..	..	..	1
	149	63	96	56	36	16	14	39	4	3	3	9	1	1	1	1

The following is a list of the Courses of Instruction offered in the School in the year 1905–06. With each course is a statement of the number of students electing it from the Divinity School, the Graduate School of Arts and Sciences, Harvard College, the Lawrence Scientific School, and Radcliffe College. A list of the lectures of the Summer School is appended to the list of regular courses.

COURSES OF INSTRUCTION.

OLD TESTAMENT.

1. Professor Lyon. — Hebrew. Davidson's Introductory Hebrew Grammar. Explanation of parts of Genesis and of the Book of Psalms. 1 Div., 8 Col.

2. Professor Toy. — Hebrew (second course). — Syntax. Interpretation of parts of the Prophets and the Poetical Books. Text-criticism.
1 Div., 1 Gr., 7 Col.

3 ^{2}*hf.* Dr. Haynes. — Jewish Aramaic. Marti's Biblisch-Aramäische Grammatik. — Interpretation of parts of Ezra, Daniel, and the Targums. *Half-course.* 1 Div., 2 Col.

11. Dr. Haynes. — Classical Aramaic (Syriac). 1 Div., 1 Gr., 1 Col.

4. Professor Lyon. — History of Israel, political and social, till the capture of Jerusalem by the Romans. 1 Gr., 25 Col., 1 Sc.

5. Professor G. F. Moore. — History of Jewish Literature from the earliest times to 200 A.D. 4 Div., 1 Col., 1 Rad.

6. Professor Toy. — History of the Hebrew Religion, with comparison of other Semitic religions. 3 Div., 2 Col.

8. Professor Lyon. — Assyrian (second course). 1 Col.

20. Research courses. The instructors will arrange and supervise for any properly prepared student a line of special study on such topic as may be agreed on. 3 Div.

NEW TESTAMENT.

2. Professor Ropes. — Introduction to the Study of the New Testament. *First half-year:* The origin and early history of the New Testament writings. *Second half-year:* The teaching of Jesus Christ, and the theological and ethical ideas of the New Testament writers.
As full course, 5 Div., 1 Gr., 2 Col. As half-course, 5 Div., 2 Col.

3. Professor Ropes. — The Gospels of Matthew, Mark, and Luke.
2 Div., 1 Gr., 1 Col., 1 Rad.

4 ^{1}*hf.* Professor Ropes. — Problems in the Study of the Life of Christ. *Half-course.* 2 Div.

12 ^{2}*hf.* Professor Ropes. — The Epistles of James, Peter, and Jude. *Half-course.* 1 Div.

15 ^{1}*hf.* Professor Fenn. — The Theological Method of Jesus and Paul. *Half-course.* 4 Div.

20. Professor Ropes. — Advanced study and research. The instructor will arrange and supervise special work of competent advanced students on such topics of New Testament study as they may desire to undertake.
2 Div.

CHURCH HISTORY.

3. Professor Emerton. — The Era of the Reformation in Europe, from the rise of Italian Humanism to the close of the Council of Trent, 1350 to 1563. 3 Div., 10 Gr., 7 Col.

4. Professor E. C. Moore. — The Church since the Reformation.
As full course, 3 Div., 2 Gr., 9 Col., 1 Sc. As half-course, 2 Div., 25 Col.

5. Professor Emerton. — History of Christian Thought, considered in its relation to the prevailing philosophy of each period from the earliest time to the Eighteenth Century. 5 Div., 1 Gr., 1 Col.

7. Professor E. C. Moore. — History of Christian Literature until the Time of Augustine. 2 Div.

20. Professor Emerton. — Advanced study and research. 1 Gr.

HISTORY OF RELIGIONS.

2. Professor G. F. Moore. — History of Religions in Outline.
As full course, 6 Div., 29 Col. As half-course, 6 Div., 2 Gr., 28 Col.

4 ^{1}*hf.* Professor G. F. Moore. — History of Judaism. *Half-course.*
4 Div., 1 Gr., 1 Col.

THEOLOGY.

1 ^{1}*hf.* Professor Fenn. — Theism. *Half-course.* 6 Div., 2 Gr., 4 Col.

2 ^{2}*hf.* Professor Fenn. — Outlines of Systematic Theology. *Half-course.*
10 Div.

3 ^{1}*hf.* Professor Fenn. — New England Theology. *Half-course.* 8 Div.

5 ^{2}*hf.* Professor Fenn. — The History and Philosophy of Christian Mysticism. *Half-course.* 9 Div.

6. Professor E. C. Moore. — The History of Christian Thought since Kant, including a discussion of the present state and tendencies of theological thought. 7 Div., 2 Gr., 3 Col.

20. Professor E. C. Moore. — The Theology of Ritschl and of the Ritschlian School, upon the basis of the works of Ritschl, Herrmann, and Kaftan.
As full course, 1 Div. As half-course, 3 Div.

ETHICS.

1 ^{2}*hf.* Professor Peabody, assisted by Dr. Rogers. — The Ethics of the Social Questions. — The Problems of Poor Relief, the Family, Temperance, and various phases of the Labor Question, in the light of ethical theory. — Lectures, special researches, and prescribed reading. *Half-course.*
11 Div., 5 Gr., 144 Col., 5 Sc.

20 ^{2}*hf.* Professor Peabody. — Seminary of Social Ethics. — Subject for the year: Religion and the Social Question. *Half-course.*
13 Div., 1 Gr., 3 Col.

20*b* ^{2}*hf.* Professor Peabody. — The instructor will direct special researches of competent students in the Ethics of the Social Questions. *Half-course.*
1 Div.

HOMILETICS AND PASTORAL CARE.

1 *hf.* Asst. Professor **Hale**. — The Structure and Analysis of Sermons. *Half-course.* 4 Div.

2. Professors **Peabody**, **E. C. Moore**, and **Fenn**, and Asst. Professor **Hale**. — Preaching. Each student prepares eight sermons during the year, of which some are preached before the class and criticized by students and instructor [in Appleton Chapel], and the rest are criticized by the instructor privately. Students in this course should already have taken Homiletics 1 or its equivalent. The course may be taken a second time with the permission of the instructor.
As full course, 4 Div. As half-course, 3 Div.

3 [1]*hf.* Asst. Professor **Hale**. — The Minister as Pastor, and the Direction of Church Activities. *Half-course.* 1 Div.

5 [2]*hf.* Asst. Professor **Hale**. — The Homiletical Use of the Bible. *Half-course.* 2 Div.

20 [2]*hf.* Professor **Peabody**. — Advanced study and research. *Half-course.* 1 Div.

ELOCUTION.

1. Mr. **Willard**. — Voice Training and the Elements of Form in Speaking. (Not counted for a degree.) 5 Div.

2 *hf.* Mr. **Willard** and Mr. **Gunnison**. — Sermon Delivery, Scripture Reading, Oral Discussion. *Half-course.* 8 Div.

SUMMER SCHOOL OF THEOLOGY.

Professor C. H. **Toy**. — Eight lectures: Scriptural Basis of Christian Belief.

Professor A. C. **McGiffert**. — Eight lectures: The Formative Period of Christian Thought.

Professor **Ephraim Emerton**. — Eight lectures: The Mediaeval Period.

Professor E. C. **Moore**. — Eight lectures: The Modern Period.

Professor W. W. **Fenn**. — Eight lectures: Constructive Principles in Christian Theology.

Professor **William James**. — Five lectures: Religious Philosophy and Individualism.

The Librarian of the School reports as follows on the condition of the Library for the ten months ending July 31, 1906: —

There were added to the Library 326 volumes and 12 pamphlets by purchase, 748 volumes and 841 pamphlets by gift. August 1, 1906, there were in the Library 35,958 volumes and 9,681 pamphlets. During the ten months 1,979 titles were catalogued in the author catalogue and 570 titles in the subject catalogue. There were borrowed from the stack for home use 1,476 volumes, from the stack for hall use 668 volumes, from the reserved books for overnight use 898 volumes.

FRANCIS G. PEABODY, *Dean.*

THE LAW SCHOOL.

To the President of the University: —

Sir, — I have the honor of presenting my report upon the Law School for the academic year 1905–06.

The table below exhibits the growth of the School during the last thirty-seven years, in the number of students, the number and

Year.	Whole No. of Students.	Total of College Graduates.	Harvard Graduates.	Graduates of other Colleges.	Non-Graduates.	Per cent. of College Graduates.	No. of Colleges represented.
1870–71	165	77	27	50	88	47	27
1871–72	138	70	34	36	68	51	25
1872–73	117	66	34	32	51	56	25
1873–74	141	86	49	37	55	61	25
1874–75	144	82	63	19	62	57	18
1875–76	173	93	60	33	80	54	25
1876–77	199	116	74	42	83	58	30
1877–78	196	121	80	41	75	62	30
1878–79	169	109	71	38	60	64	24
1879–80	177	118	90	28	59	66	20
1880–81	161	112	82	30	49	70	19
1881–82	161	99	66	33	62	61	22
1882–83	138	93	58	35	45	67	32
1883–84	150	105	75	30	45	70	25
1884–85	156	122	85	37	34	78	31
1885–86	158	122	83	39	36	77	29
1886–87	188	143	88	55	45	76	34
1887–88	225	158	102	56	67	70	32
1888–89	225	158	105	53	67	70	32
1889–90	262	189	122	67	73	72	41
1890–91	285	200	135	65	85	70	33
1891–92	370	257	140	117	113	69	48
1892–93	405	266	132	134	139	66	54
1893–94	367	279	129	150	88	76	56
1894–95	413	310	139	171	103	75	74
1895–96	475	380	171	209	95	80	82
1896–97	490	408	186	222	82	83	82
1897–98	551	490	229	261	61	89	77
1898–99	564	503	212	291	61	89	78
1899–00	613	557	236	321	56	91	67
1900–01	655	605	252	353	50	92	83
1901–02	633	584	247	337	49	92	92
1902–03	644	600	241	359	44	93	94
1903–04	743	695	272	423	48	94	111
1904–05	766	711	286	425	55*	93	114
1905–06	727	716	295	421	11	98	118
1906–07	700	691	258*	433	9	99	124

* 28 Harvard Seniors who have completed the full College course, but have not received their diplomas, are reckoned as graduates. Prior to 1905–06 Harvard Seniors were not reckoned as graduates but as non-graduates.

Instructors.	Studies and Text-books.	Exercises per week.	Number of students examined.
	First Year.		
Prof. Williston Asst. Prof. Wyman	Contracts. Williston's Cases on Contracts	3	250
Prof. Wambaugh. Mr. Hollis	Property. Gray's Cases on Property, vols. 1, 2	2	245
Prof. Smith	Torts. Cases on Torts: Ames, vol. 1 (2d ed.), Smith, vol. 2	2	246
Prof. Beale	Criminal Law and Procedure. Beale's Cases on Criminal Law	2	235
Prof. Ames	Civil Procedure at Common Law. Ames's Cases on Pleading	1	290
	Second Year.		
Prof. Wambaugh	Agency. Wambaugh's Cases on Agency	2	31
Prof. Brannan	Bills of Exchange and Promissory Notes. Ames's Cases on Bills and Notes	2	15
Prof. Gray	Evidence. Thayer's Cases on Evidence (2d ed.)	2	231
Asst. Prof. Warren	Jurisdiction and Procedure in Equity. Ames's Cases in Equity Jurisdiction, vol. 1	2	228
Asst. Prof. Warren	Property. Gray's Cases on Property, vols. 3, 4	2	230
Prof. Williston	Sales of Personal Property. Williston's Cases on Sales	2	142
Prof. Ames	Trusts. Ames's Cases on Trusts (2d ed.)	2	219
Mr. Dutch	Admiralty. Ames's Cases on Admiralty	1	10
Prof. Williston	Bankruptcy. Williston's Cases on Bankruptcy	1	1
Asst. Prof. Wyman	Carriers. Beale and Wyman's Cases on Public Service Companies	1	9
Prof. Brannan	Damages. Beale's Cases on Damages	1	2
Prof. Smith	Persons. Smith's Cases on Persons	1	9
Prof. Ames	Quasi-Contracts. Scott's Cases on Quasi-Contracts	1	4

Third Year.

Prof. Beale	Conflict of Laws. Beale's Cases on the Conflict of Laws	2	201
Prof. Wambaugh	Constitutional Law. Thayer's Cases on Constitutional Law	2	25
Asst. Prof. Warren	Corporations. Smith's Cases on Private Corporations (2d ed.). Smith's Cases on Municipal Corporations	2	227
Prof. Brannan	Partnership. Ames's Cases on Partnership	2	21
Prof. Gray	Property. Gray's Cases on Property, vols. 5, 6	2	104
Asst. Prof. Wyman	Suretyship and Mortgage. Ames's Cases on Suretyship. Wyman's Cases on Mortgage	2	153
Prof. Wambaugh	Agency. Wambaugh's Cases on Agency	2	52
Prof. Brannan	Bills of Exchange and Promissory Notes. Ames's Cases on Bills and Notes	2	150
Prof. Gray	Evidence. Thayer's Cases on Evidence	2	7
Asst. Prof. Warren	Jurisdiction and Procedure in Equity. Ames's Cases in Equity Jurisdiction, vol. 1	2	14
Asst. Prof. Warren	Property II. Gray's Cases on Property, vols. 3, 4	2	11
Prof. Williston	Sales of Personal Property. Williston's Cases on Sales	2	18
Prof. Ames	Trusts. Ames's Cases on Trusts (2d ed.)	2	16
Mr. Dutch	Admiralty. Ames's Cases on Admiralty	1	23
Prof. Williston	Bankruptcy. Williston's Cases on Bankruptcy	1	27
Asst. Prof. Wyman.	Carriers. Beale and Wyman's Cases on Public Service Companies	1	44
Prof. Brannan	Damages. Beale's Cases on Damages	1	14
Prof. Ames	Equity III. Ames's Cases in Equity Jurisdiction, vol. 2	1	130
Prof. Smith	Persons. Smith's Cases on Persons	1	29
Prof. Ames	Quasi-Contracts. Scott's Cases on Quasi-Contracts	1	64

percentage of college graduates, and in the number of colleges represented by their graduates. The figures for the current year will be slightly increased by later entries.

The table on pages 164, 165 gives the courses of study and instruction during the year, the text-books used, the number of exercises per week in each course, and the number of students who offered themselves for examination in each course at the end of the year.

There are in the School to-day 72 fewer graduates of Harvard College than were on our books January 1, 1905. On the other hand, the number of graduates of other colleges is larger by 12 than two years ago. It is evident that Harvard graduates are responding to the growing demand for college-bred men by the managers of large business enterprises.

During the twelve months from August 1, 1905, to August 1, 1906, 9,189 bound volumes and 1,682 pamphlets were added to the library. The library contained, August 1, 1906, about 96,545 volumes and about 10,600 pamphlets.

The collection of portraits of judges and lawyers has been increased, during the past year, by four engravings, two etchings and six photographs. The portraits now hanging (or ready to hang) on the walls of Austin Hall number 410, namely, 23 oil paintings, 259 engravings, 25 etchings, 78 photographs, 1 water-color, 2 pencil sketches, 19 lithographs, and 3 bas reliefs. There are also 54 trial scenes and views of law buildings.

An interesting collection of colored cartoons of judges and lawyers has been made, mostly during the past year. It numbers 177.

An interesting and valuable addition to our books came from the library of the late James M. Barnard, who, for many years, manifested an interest in the School. In his will he suggested that his law books and portraits of lawyers be given to us, but left the disposition of them wholly in the hands of his wife. Mrs. Barnard carried out this suggestion, and, under a power in the will, generously made a further gift of $2,000 for the purchase of books, preferably works on International Law, a department of the library inadequately equipped. It seemed fitting that the book-plate in the books coming from Mr. Barnard's library and those bought with the $2,000 should indicate that they were the joint gift of James Munson Barnard and Augusta Barnard.

Another interesting gift should be mentioned. Many years ago, when the resources of the School were limited, Professor Langdell deposited temporarily in the library 90 volumes of the most costly

English reports. Mrs. Langdell has generously made this deposit permanent.

Miss Frances A. L. Haven, in memory of James Coolidge Carter, the distinguished lawyer, and the long-time friend of her father's family, gave the School $12,000 to establish the James Coolidge Carter Loan Fund, the income of which is to be loaned to students of limited means and of exceptional character and ability. As this fund will steadily increase by the payment of interest and the repayment of loans, it is provided that the excess of income over $1,000 may be used for the purchase of books, preferably for those relating to the subjects taught by the holder of the new professorship in the Law School, created by the bequest of Mr. Carter, and to be known as the Carter Professorship. Miss Haven's gift will be as beneficent in its results as it is interesting in its associations.

By the gift of $3,500 the School has for the first time a scholarship wholly its own. This scholarship, to be called the George Fisher scholarship, was established by the generosity of Mrs. Austin C. Wellington, in memory and in honor of her father, the late George Fisher, who was a student in this School in the year 1853–54.

Langdell Hall is rising rapidly and promises to be a worthy memorial of Professor Langdell. Although, to our great regret, it was not given to him to see the completion of the new building, it is a great satisfaction to us that he lived to know that the ground had been broken for this monument to his great achievements.

JAMES BARR AMES, *Dean.*

THE FACULTY OF MEDICINE.

To the President of the University: —

Sir, — As Dean of the Faculty of Medicine I have the honor to submit the following report for the academic year 1905–06.

For some time the question of allowing special students to enter the School has been under more or less discussion, and the Faculty has decided to open all courses, including laboratory courses, to persons not candidates for the degree of Doctor of Medicine; that is to say, to special students and to students in other Departments of the University.

A communication from the Corporation, requesting the advice of the Faculty of Medicine in regard to a petition to admit women to the Medical School, was carefully considered, and it was decided that it is impracticable, at present, to admit women to the regular curriculum of the Medical Department of the University.

A clinical laboratory has been established in the Division of Medicine for the special training of students and practitioners in the chemical, microscopical, and bacteriological methods employed in the practice of medicine. The Instructor in Chemistry was transferred from the Division of Chemistry to that of Medicine.

During the year 115 men were recommended to the Corporation for degrees as follows: —

Medical School	For the degree of M.D. (February)	12
	“ “ “ (June)	49
	“ “ “ *cum laude* (June)	20
Dental School	For the degree of D.M.D. (February)	0
	“ “ “ (June)	30
	“ “ “ *cum laude* (June)	4
	Total	115

With a view to beginning the work of the School more promptly students were required this year to make their choice of electives the first day of the term.

In my last report, for the year 1904–05, I spoke of the somewhat surprising result of the choice of studies by the fourth-year men of 1905–06, when the new elective curriculum for the fourth year first went into effect, and showed by a comparative table that the students chose to continue practically the same work that had been previously required; that they had not elected specialties or laboratory courses to any extent, but preferred rather to continue their training for general practice by the pursuit of general clinical work. In other words, the fourth class believed for the most part that it was too early in their education to begin to specialize.

This attitude is still more forcibly shown in the choice of work by the sixty-seven men of the fourth class of 1906–07, as shown in the following table: —

NUMBER OF HALF-COURSES ELECTED FOR 1906–07.

Anatomy	42
Comparative Anatomy	0
Embryology	0
Histology	0
Physiology *	8
Comparative Physiology	0
Biochemistry	2
Bacteriology	0
Pathology	6
Neuropathology	3
Hygiene	6
Clinical Medicine	108
Theory and Practice†	28
Clinical Pathology	2
Pediatrics	72
Clinical Surgical Pathology	7
Surgery	113
Genito-Urinary Surgery	6
Orthopedics	16
Surgical Pathology	2
Obstetrics	59
Gynaecology	19
Dermatology and Syphilis	8
Neurology and Psychiatry	19
Ophthalmology	0
Otology	1
Laryngology	9
	536

Inspection of this table shows that of 536 half-courses, taken by 67 men, 422, or nearly 80%, were in the fundamental subjects of Anatomy, General Medicine and Surgery, Pediatrics, and Obstetrics. Only one man chose to devote his whole year to one subject, Physiology. Few men took more than one half-course in a single subject, except in Clinical Medicine and General Surgery.

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* All taken by one man.

† Class limited to this number.

From the experience of the last two years it may be fairly concluded that our students believe four years not too long a time to devote for the most part to preparation for general hospital work and subsequent general practice, and that specialized work in narrow fields had best be left for graduate study.

At the December meeting of the Faculty Drs. J. C. Warren, W. L. Richardson, and H. C. Ernst were appointed with full powers to act in the matter of the dedication of the new buildings of the Medical School in consultation with the Corporation.

WILLIAM L. RICHARDSON, *Dean.*

THE MEDICAL SCHOOL.

To the President of the University: —

Sir, — As Dean of the Medical School I have the honor to submit the following report for the academic year 1905–06.

The Administrative Board was constituted as follows: Drs. W. L. Richardson, J. C. Warren, F. C. Shattuck, W. F. Whitney, C. M. Green, C. Harrington, F. B. Mallory, W. B. Cannon, and J. Warren.

By invitation, Baron S. Suzuki, Surgeon General, gave an address to the students on the work of the Japanese Medical Corps in the late war.

Medical Director R. A. Marmion, U. S. N., President of the Naval Medical Examining Board, also gave an address on the inducements which the Naval Medical Service now holds out to young men under thirty years of age.

Building. — No changes were made in the building during the past year, owing to the fact that preparation was being made to move into the new buildings, on Longwood Avenue, early in the summer.

Anatomy. — During the past year the Anatomical Department has conducted the courses in accordance with the plan offered. It is proper to state, however, that the Professor and every teacher under him consider the time allotted entirely inadequate. A very great deal of work has fallen to the share of the Demonstrator, who has conducted the dissecting courses of the fourth year. The Professor, besides being engaged in original work in observing variations, especially those of the spine and of the hand and foot, has devoted much time to the Museum. The collection of variations is assuming a very satisfactory appearance.

The following list includes such publications by the members of the department as can with any propriety be considered to have a relation to anatomical work: —

Numerical variation in the human spine, with a statement concerning priority. By Professor Thomas Dwight. *Anatomischer Anzeiger*, Bd. XXVII, Nos. 1 and 2, 1906.

The clinical significance of variations of wrist and ankle. By Professor Thomas Dwight. *Journal of the American Medical Association*, Vol. XLVII, July 28, 1906. Read at the June meeting, in Boston.

The development of the paraphysis and the pineal region in necturus maculatus. By Dr. JOHN WARREN. *The American Journal of Anatomy*, Vol. V, No. 1, December, 1905.

Referat über die Anatomische Literatur Amerikas für die Jahre 1900 und 1901. By Dr. JOHN WARREN. *Ergebnisse der Anatomie und Entwicklungsgeschichte*, Bd. XIV, 1905.

A case of congenital occlusion of the small intestine. By Dr. LINCOLN DAVIS, in conjunction with Dr. OSCAR RICHARDSON. *Boston Medical and Surgical Journal*, April 19, 1906.

A direct method of correcting deformity of the nasal bones. By Dr. H. P. MOSHER. *The Laryngoscope*, January, 1906.

The use of the X-ray in sinus disease. By Dr. H. P. MOSHER. *The Laryngoscope*, February, 1906.

Inflammation of the frontal sinus. By Dr. H. P. MOSHER. *Boston Medical and Surgical Journal*, June 7, 1906.

Retroperitoneal perineal lipomata. A study of large retroperitoneal lipomata of perineal origin. The technique of their removal based on anatomical studies, with the report of a case. By Dr. R. G. WADSWORTH. *Annals of Surgery*, July, 1906.

The muscle-splitting in McBurney incision in acute appendicitis: the course and results of seventy-five consecutive cases. By Dr. D. D. SCANNELL. *Boston Medical and Surgical Journal*, December 28, 1905.

Two cases of anatomical anomaly of the large intestine. By Dr. SAMUEL ROBINSON. *Boston Medical and Surgical Journal*, December 28, 1905.

Comparative Anatomy. — During the past year Dr. Minot was appointed James Stillman Professor of Comparative Anatomy and placed in charge both of the new work to be undertaken for that professorship and of the instruction in Histology and Embryology which hitherto formed a separate department. Ample room in the new laboratories for the new work is provided, but as yet nothing further has been attempted in Comparative Anatomy. The usual instruction in Histology and Embryology has been carried on. The embryological collection has been increased by 163 new series of sections of embryos, making the total number 1119 series. The additions have comprised a few human embryos and a large number of turtle embryos, *Chrysemys marginata*. For the turtle material we are indebted to Dr. Bennett M. Allen of the University of Wisconsin, by whom the specimens were collected.

The following publications have been issued: —

Normal plates of the development of the rabbit (Lepus cuniculus, L.). By Professor C. S. MINOT and Dr. EWING TAYLOR. *Normentafeln zur Entwickelungsgeschichte der Wirbelthiere*, Heft V, 4to, 3 pts., 98 pp.

The relations of embryology to medical progress. Oration before the Maine State Medical Society. By Professor C. S. MINOT. *Popular Science Monthly*, Vol. LXIX, pp. 5–20.

The fifth and sixth aortic arches and the related pharyngeal pouches in the rabbit and pig. By Dr. F. T. LEWIS. *Anatomischer Anzeiger*, Vol. XXVIII, 1906, pp. 506–513.

The mixed cerebral nerves in mammals. By Dr. F. T. LEWIS. *Journal of Comparative Neurology*, Vol. XVI, 1906, pp. 177–182.

Stöhr's Histology, arranged upon an embryological basis by Dr. F. T. LEWIS. From the twelfth German edition by Dr. PHILIPP STÖHR. Sixth American edition, with 450 illustrations. ix + 434 pp. Philadelphia, P. Blakiston's Son & Co.

Microscopic evidences of absorption in the large intestine. By Dr. J. L. BREMER. *Journal of Medical Research*, Vol. XV, 1906, pp. 89–96.

Description of a 4 mm. human embryo. By Dr. J. L. BREMER. *American Journal of Anatomy*, Vol. V, 1906, pp. 459–480.

Physiology. — There have been published the following papers containing investigations by the laboratory staff: —

Studies in the physiology of muscle: I. Observations on the tonus of heart muscle. By Professor W. T. PORTER. *The American Journal of Physiology*, 1905–06, Vol. XV, pp. 1–14.

The relation of tonus contraction to conduction in smooth muscle. By Professor W. T. PORTER and Messrs. C. H. LAWRENCE, Jr., and L. H. NEWBURGH. *The American Journal of Physiology*, 1905–06, Vol. XV, pp. 29–30.

Recent advances in the physiology of the digestive organs bearing on medicine and surgery. By Assistant Professor W. B. CANNON. *American Journal of the Medical Sciences*, 1906, Vol. CXXXI, pp. 563–578.

A research on the motor activities of the alimentary canal after section of the splanchnic and vagus nerves. By Assistant Professor W. B. CANNON. Is ready for publication.

During a part of the summer Mr. Donald Macomber worked with Assistant Professor W. B. Cannon on a reflex mechanism of the central nervous system.

The following have also been published: —

An introduction to physiology. By Professor W. T. PORTER. Second edition, revised and enlarged. J. B. Lippincott Co. 1906. 586 pp.

Physiology at Harvard. By Professor W. T. PORTER. Fifth edition. Cambridge, University Press. 124 pp.

Biological Chemistry. — The Department of Biological Chemistry has been able to add materially to its outfit of apparatus and store of chemicals. These additions, made possible by the generosity of two benefactors, though greatly increasing the usefulness of the laboratory, are but a part of what is needed. Various special machines, like centrifuges, are still required to facilitate the ordinary processes of biochemical research, and, in order that delays of months may not occur in the progress of researches, a larger stock of chemicals not to be had in America is essential.

During the past year the department has made an arrangement with the Division of Chemistry of the Faculty of Arts and Sciences whereby the degrees of Ph.D. and S.D. in Chemistry, in the subject of Biological Chemistry, may be granted by the Faculty of Arts and Sciences for work done in part in the Medical School under the direction of the instructors of the Department of Biological Chemistry. It is hoped that this new arrangement may materially extend the usefulness and productiveness of the laboratory, and may lead to a closer relationship between the two chemical laboratories of the University.

Various researches have been actively pursued during the whole of the past year. The following papers have been published from the laboratory or by members of the department: —

The cleavage products of vitellin (from the Rockefeller Institute for Medical Research). By Drs. P. A. LEVENE and C. L. ALSBERG. *Journal of Biological Chemistry*, Vol. II, p. 27, 1906.

Equilibrium in solutions of phosphates. By Dr. L. J. HENDERSON. *American Journal of Physiology*, Vol. XV, p. 257, 1906.

Note on equilibrium in solutions of phosphates. By Dr. L. J. HENDERSON. *American Journal of Physiology*, Vol. XVI, p. 188, 1906.

Physical properties of the antiseptic (appended to article by Dr. F. H. VERHOEFF). By Dr. L. J. HENDERSON. *Journal of the American Medical Association*, Vol. XLVI, p. 272, 1906.

The composition of bone in osteomalacia. By Mr. F. H. MCCRUDDEN. *American Journal of Physiology*, Vol. XVII, p. 32, 1906.

The effect of castration upon the metabolism in osteomalacia. By Mr. F. H. MCCRUDDEN. *American Journal of Physiology*, November, The following investigations have been completed, but are unpublished: —

The hydrolysis of gelatine with acids of varying contractions (in the Rockefeller Institute for Medical Research and this Laboratory). By Drs. P. A. LEVENE and C. L. ALSBERG.

The elimination of the cooling correction in experiments with the Berthelot calometric bomb (in the Chemical Laboratory of Harvard College). By Professor T. W. RICHARDS, Dr. L. J. HENDERSON, and Mr. H. L. FREVERT.

The ratio of the heats of combustion of cane sugar and benzol (in the Chemical Laboratory of Harvard College). By Professor T. W. RICHARDS, Dr. L. J. HENDERSON, and Mr. H. L. FREVERT.

The influence of position isomerism upon heats of combustion. By Dr. L. J. HENDERSON.

New uses of phosphates in culture media. By Dr. L. J. HENDERSON and Mr. H. B. WEBSTER.

The compressibility of muscle and of gelatine (in the Chemical Laboratory of Harvard College and this Laboratory). By Dr. L. J. HENDERSON and Mr. F. N. BRINK.

The metabolism in chronic joint disease. By Dr. W. TILESTON.

The retention of chlorides in cardiac and renal edema (in the II Medizinischen Clinik, Munich, and this Laboratory). By Dr. H. F. HERTZ.

The excretion of phosphates in experimental acidosis. By Mr. R. FITZ.

Bacteriology. — Dr. Ernst spent all the time possible in the study of the best methods for the application of the ultra-violet apparatus of Zeiss to biological problems; at first with the assistance of Dr. S. B. Wolbach, and throughout the winter with the assistance and encouragement of Professor W. C. Sabine; the interest of the latter was a most stimulating factor in face of the difficulties encountered. A preliminary paper with seven plates was published under the title of "Ultra-violet Photomicrography," in *The Journal of Medical Research*, Vol. XIV.

Much time was also consumed in editing a history of the School, authorized by the Faculty.

Dr. E. N. Tobey, candidate for the Master's Degree in the Graduate School, completed an exhaustive summary of the literature and a new classification of the Trypanosomata, which was published in *The Journal of Medical Research*, Vol. XV, No. 1, pp. 117-146. This classification is adopted by Dr. J. H. Todd, of the Liverpool School of Tropical Medicine, in his forthcoming account of the expedition to the Congo to study sleeping sickness.

Dr. Tobey published a second article on "Trypanosomiasis of the Newt," based on research done in the laboratory, in *The Journal of Medical Research*, Vol. XV, No. 1, p. 147.

L. Frothingham, M.D.V., has continued his work upon rabies, and has a large amount of material from more than two hundred animals that there has not yet been time to study. He has also made a number of permanent gelatine mounts of the tissues from various infections, especially of tuberculosis and glanders. He has published the following papers: —

Rabies. By L. FROTHINGHAM, M.D.V. *The American Journal of Public Hygiene and Journal of the Massachusetts Association of Boards of Health*, Vol. XV, No. 1.

The rapid diagnosis of rabies, with three plates. By L. FROTHINGHAM, M.D.V. *The Journal of Medical Research*, Vol. XIV, No. 3, p. 471.

Mr. L. R. Fulton, candidate for the Master's Degree in the Graduate School, worked throughout the year, first in the required course, and then on special lines concerned with plant bacteriology. He completed a monograph on the biology of an undescribed soil organism, which is about to be published.

A function of the laboratory that has been increasing in importance for some time is the supplying of other teaching establishments with cultures and material for instruction, and hospitals and private individuals with cultures for diagnostic purposes. During the past year over two hundred cultures have been furnished to more than fifty institutions and individuals.

Pathology. — Several changes have taken place during the past year in the personnel of the department. At the end of the first half-year Dr. W. R. Brinckerhoff resigned his instructorship to accept a government position as Director of the Leprosy Station at Molokai. Dr. S. Burt Wolbach was advanced from the rank of assistant to that of instructor. These changes, and others equally numerous, occurring at the Boston City Hospital laboratory (which is under the direction of members of the School staff), have interfered seriously with the amount of research work usually produced by the department.

During the year much time has had to be devoted to the formation of a teaching collection of gelatine mounted Kaiserling preparations for class purposes.

Neuropathology and Surgical Pathology have also been busy with the same problem. The collections will be stored in rooms specially prepared for them in the pathological building.

The Department of Pathology has suffered greatly during the past two or three years from a lack of fresh pathological material for demonstration purposes. In the past a reasonably sufficient amount was obtained from the hospitals of Boston, but recently this has been reduced to almost nothing. Two causes have led to this result. The trustees of the Boston City Hospital have ruled that all organs must be returned immediately after an autopsy to the body from which they were removed. Practically the same rule is in force at the Long Island Hospital. The clinical men at the Massachusetts General Hospital demand that all autopsy material be saved during each week for a demonstration before internes and students on Friday afternoon. This material, after being kept so long and after being frozen and thawed out twice, is almost valueless when received at the School.

This cutting off of the supply of fresh material from the three largest sources practically reduces the department to the few specimens received from private autopsies, a source which is totally inadequate. As a result of this limited amount of fresh material, the department has been forced to depend, to a large extent, on its own supply of Kaiserling preparations. Such preparations can never supplant the use of fresh material which the students can themselves handle and dissect.

The following publications from members of the department or from laboratories under their direction have appeared between October 1, 1905, and October 1, 1906: —

A case of blastomycosis: the results of culture and inoculation experiments. By Drs. J. T. Bowen and S. B. Wolbach. *The Journal of Medical Research*, Vol. X, No. 1. July, 1906.

Cystic aplasia of the cerebral hemispheres in an idiot child. By Drs. W. N. Bullard and E. E. Southard. *The Journal of Medical Research*, Vol. XIV, p. 431. January, 1906.

A case of diffuse gliosis of the cerebral white matter in a child. By Drs. W. N. Bullard and E. E. Southard. *The Journal of Nervous and Mental Disease*, Vol. XXXIII, p. 3. March, 1906.

A case of multiple ulcers of the gall bladder. By Drs. E. A. Locke and S. B. Wolbach. *The Boston Medical and Surgical Journal*, Vol. CLIX, No. 25. June, 1906.

The present needs of the Harvard Medical School. By Professor F. B. Mallory. *Science*, September, 1906.

Demonstration of the spirochaeta pallida of syphilis, with description of a rapid method of staining. By Dr. T. J. Manahan. *The Boston Medical and Surgical Journal*, Vol. CLIV, p. 264.

Cerebral seizures with suboccipital pain: miliary cerebral and gross vertebral aneurisms. By Drs. W. D. RUSTON and E. E. SOUTHARD. *The Boston Medical and Surgical Journal*, Vol. CLIV, p. 12. March, 1905.

A case of cholesterin stones in the brain and cord. By Dr. E. E. SOUTHARD. *The Journal of the American Medical Association*, Vol. XLV, p. 23. December, 1905.

A case of Potts disease in the monkey. By Dr. E. E. SOUTHARD. *The Journal of Medical Research*, Vol. XIV, p. 393. January, 1906.

A case of glioma of the frontal lobe with invasion of the opposite hemisphere. By Dr. E. E. SOUTHARD. *The American Journal of Insanity*, Vol. LXII, No. 2. July, 1906.

A study of brain infections with the pneumococcus. By Drs. E. E. SOUTHARD and C. W. KEENE. *The Journal of the American Medical Association*, Vol. XLVI, p. 1. January, 1906.

Origin and nature of the blood plates. By Dr. J. H. WRIGHT. *The Boston Medical and Surgical Journal*, Vol. CLIV, p. 643.

A method for the differential staining of blood plates. By Dr. J. H. WRIGHT. *The Boston Medical and Surgical Journal*, Vol. CLV, p. 30.

Comparative Pathology. — During the past year the work of this department was carried on as in the preceding year. During the summer of 1906 the quarters assigned to it in the new buildings, comprising nearly one half of the north wing of the building designated Hygiene and Pharmacology, were occupied. Thus for the first time since its establishment ten years ago is this department housed with the other laboratory departments. The additional munificent gift of seventy-five thousand dollars, recently presented by Mr. George F. Fabyan, brings the endowment of this chair to the sum of two hundred thousand dollars, and will make it possible to conduct the new laboratory on a progressive basis, both as regards teaching and research, without encroaching upon the other funds of the Medical School. There is still needed a suitable animal house or stable for the study of diseases of the larger domestic animals.

In addition to the work entailed by two courses of instruction in the first half-year, investigations have been carried on in a variety of subjects. As is usual in the study of diseases, the choice of these subjects was dictated largely by opportunity and accessibility of material for work. From among them may be mentioned immunity in tuberculosis, transmission of toxin immunity from parents to young, diseases in horses undergoing injections of diphtheria toxin, the resistance of red blood corpuscles, and the bacteriology of oysters. Four manuscripts are nearly ready for publication. Only two papers have appeared in the course of the year:—

The parasitism of the tubercle bacillus and its bearing on infection and immunity. (One of the Harvey Society lectures for 1906.) By Professor THEOBALD SMITH. *The Journal of the American Medical Association*, 1906, Vol. XLVI, pp. 1247–1254, 1345–1348; also in *Proceedings of the Harvey Society*.

A description of the new antitoxin and vaccine laboratory, together with a ten years' retrospect of the production and distribution of diphtheria antitoxin. By Professor THEOBALD SMITH. *Annual Report of the Massachusetts State Board of Health*, 1905, pp. 529–546.

Experimental Pharmacology and Therapeutics. — Professor Franz Pfaff and Dr. L. Nelson studied the effects of aperients on the peristalsis of the stomach and intestines. The preliminary results were reported by Professor Pfaff at the May meeting of the Association of American Physicians in Washington, and the final results were reported at the meeting of the American Medical Association in Boston, June, 1906.

The following paper was published: —

The use and abuse of digitalis. By Dr. F. PFAFF. *The Boston Medical and Surgical Journal*, May, 1906.

Dr. M. V. Tyrode made an experimental research on the pharmacology of camphoric acid.

Surgery and Clinical Surgery. — The required instruction in these departments has not been materially changed during the past year.

Minor improvements have been made in the various courses; for example, closer coöperation has been secured between the authorities of the two great hospitals and the Division of Surgery in securing opportunities for students to work at the hospitals, and in supplying students to do the work of the surgical out-patient departments of the hospitals.

The elective fourth year in surgery has been apparently successful. Many students elected two months, and almost uniformly showed excellent judgment in the work they desired to do.

A certain number of the students in the mornings of each month received systematic instruction, and observed the cases in the operating rooms and wards at the Massachusetts General Hospital. This instruction consisted of ward visits in which individual cases for diagnosis were assigned to the students and demonstrated by them; consideration of after treatment in surgical cases, and attendance at operations. In addition to these exercises, short lectures and quizzes were given daily to the students by one or another of the instructors who were not on duty at the hospital, and in this way a great number of subjects in surgery and surgical pathology were covered. A special exercise of great value was given by Drs. Whitney and Simmons once a week in demonstration of the pathological material obtained at operations. A reading room was also fitted up for the students, and equipped with the standard text-books on surgery, in order that opportunity for collateral reading might be given.

Another section of the students in the mornings of each month had the opportunity of doing a part of the work on one of the surgical services at the Boston City Hospital. They received daily systematic instruction in selected subjects, established diagnoses, assisted at operations, examined pathological specimens that were removed, followed day by day the progress of the cases in the wards, and did ward work, operating-room work, and out-patient surgical work. This work continued throughout the academic year.

A portion of the students in the afternoons of each of the months worked on the "general surgical service" at the Children's Hospital, doing dressings in the surgical out-patient department, making diagnoses, and doing and assisting at minor operations. From time to time the students under the house surgeon were shown and examined all the patients in the wards of the general surgical service.

Each month two or three students worked as dressers at the Relief Station of the Boston City Hospital. This work was arduous, for it occupied the student's time from early in the morning until well into the evening, but the work was sought for by practically every man who elected surgery. The students every day observed, examined, and treated, under supervision, from seventy-five to one hundred and fifty casualties. Sundays the work was less, but the students were present to do what work was assigned to them.

Every student who elected two months of surgery was requested to write a thesis, under instruction from Dr. Blake or Dr. Greenough, and some of these theses were excellent.

During the year the students who elected surgery attended the lectures given by Professor T. Smith, and a series of lectures given by members of the corps of medical instructors. The following lectures were given by members of the Division of Surgery on medico-surgical subjects to the students who had elected medicine and surgery: —

Dr. G. W. Gay,	Cellulitis.
Dr. M. H. Richardson,	Surgical Complications of Typhoid.
Dr. S. J. Mixter,	Management of Difficulties of Deglutition.
Dr. F. S. Watson,	The Medical and Surgical Treatment of Renal Calculi.
Dr. E. H. Nichols,	Osteomyelitis — Rheumatism. (After February.)
Dr. C. A. Porter,	Empyema.
Dr. J. B. Blake,	Surgical Aspects of the Surgery of the Gastro-intestinal Tracts. (2 lectures.)

The elective course in genito-urinary surgery was given by Dr. Watson in the first half of the year, and by Dr. Thorndike in the second half of the year.

Research work under the auspices of the Committee on Surgical Research has been continued during the past year. One paper was published by Assistant Professor W. B. Cannon and Dr. F. T. Murphy in the *Annals of Surgery*, April, 1906, on "The Movements of the Stomach and Intestines in some Surgical Conditions."

The work of the Caroline Brewer Croft Fund Cancer Commission has been carried on during the past year by Dr. E. E. Tyzzer, Director of Research. A large number of experiments have been made on the transplantable tumors of mice, and the interesting and valuable results of these experiments are now being prepared for publication.

Orthopedic Surgery. — The work in this department has been divided in three parts, — the first for third-year students, the second for fourth-year students, and the third for graduates.

The required work for third-year students in orthopedics has been largely lantern slide demonstrations, a syllabus, and a few clinical exercises. The object of this course is to give the students, whether they intend to practice medicine generally or specially, the minimum amount of information necessary for a properly educated physician.

The elective course in orthopedic surgery for the fourth year was well attended, and consisted entirely of group and case teaching with demonstrations. The class was a comparatively large one. The attendance was good, and the course seemed to be satisfactory to the students.

Surgical Pathology. — The required second-year course in surgical pathology has been modified in detail, although given in the same general way as before. A large number of microphotographs and photographs of gross specimens have been added.

Much attention has been paid to collecting material for the proposed fourth-year course in Regional Surgical Pathology. The collection of gross specimens, preserved in Kaiserling and in alcohol, has been much enlarged, and now has assumed respectable proportions. The collection of drawings to illustrate the course, and to supplement the gross specimens, now includes nearly two hundred drawings, paintings, photographs, and microphotographs. This collection was exhibited at the recent meeting of the American Medical Association.

Dr. F. T. Murphy has just completed a research, "Observations on Experimental Incisions through the Abdominal Wall of Cats." This article is ready for publication.

Dr. A. H. Gould performed all of the experimental work for his recent book, "Operations upon the Intestines and Stomach," in the surgical laboratory.

Assistant Professor E. H. Nichols has published in Bryant and Buch's System of Surgery the article upon "Repair of Tissues."

Assistant Professor E. H. Nichols has in press the article on "Rickets," in Keen's Surgery.

Assistant Professor E. H. Nichols and Dr. R. W. Lovett presented at the Toronto meeting of the British Medical Association an article on "Osteogmesis Imperfecta," to be published in the *British Medical Journal*.

Neurology. — During the past year the Department of Neurology published the first volume of scientific papers written by the members of the department, and representing studies made at the Massachusetts General Hospital, Boston City Hospital, Long Island Hospital, and Neurological Laboratory. This volume was edited by Dr. E. W. Taylor. It contains 210 pages of text, besides an appendix giving a complete bibliography of the scientific papers written by members of the department up to the present date. It is the intention of the department to issue similar volumes about once each year.

Hygiene. — Professor Charles Harrington and Dr. Magrath conducted an investigation of the germicidal properties of various kinds of soaps, including laundry, scented and unscented toilet, and medicated. The results have not yet been published.

The following papers have been published: —

Sanitary importance of clean milk. By Professor CHARLES HARRINGTON. *The Boston Medical and Surgical Journal*, February 1, 1906.

Public water filtration in Massachusetts. By Professor CHARLES HARRINGTON. *The Medical Record*, March 24, 1906.

The national pure food law. By Professor CHARLES HARRINGTON. *The American Journal of Public Hygiene*, August, 1906.

An outbreak of typhoid fever in Springfield, Mass. By Dr. G. B. MAGRATH. *The American Journal of Public Hygiene*, November, 1905.

Museum. — Possession of the new Warren Anatomical Museum was taken at the end of the school year. The removal of the specimens took about four weeks, requiring the entire time of ten people to pack and unpack, and of one or two teams for their transportation. Only one wax model, of little value, was broken, and a few small articles were lost, probably in the excelsior used for packing.

It was difficult to realize that the collection had been under such pressure for room in the old School building. For, with three times as many feet of shelving as in the old cases, there is very little empty space left after properly displaying the specimens in the new ones. Although they have been placed upon the shelves in approximately the position they will occupy, still much rearrangement will be necessary, and an entire new set of labels and a new catalogue will have to be made. It is estimated that it will take fully a year to do this, and the collaboration of those interested in each department will be sought. In this connection it may be stated that it will also be the aim of the curator to make the collection a means of popular education, as well as of the greatest utility for systematic teaching and for aid to research.

A valuable gift of race skulls has been received during the past year.

Especial mention must be made of the work done by Dr. C. G. Weld, assisted by Dr. Townsend Thorndike, on a collection of old surgical instruments, which have been finely mounted and placed in cases presented by Dr. Weld. These will be permanently placed in the upper gallery of the new hall.

The Scholarships and Fellowships were awarded as follows: —

Joseph Pearson Oliver Scholarship,	M. J. Shaughnessy, A.B.,	3d Class.
Barringer Scholarship, No. 1,	H. V. Hendricks, S.B.,	1st “
Isaac Sweetser Scholarship,	E. L. Booth, A.B.,	2d “
Claudius M. Jones “	R. T. Congdon, A.B.,	3d “
Hilton “	W. A. Sawyer, A.B.,	4th “
“ “	A. T. Brant, A.B.,	3d “
Barringer “ No. 2,	W. J. C. Sharpe, A.B.,	2d “
Alfred Hosmer Linder Scholarship,	H. Morrison, A.B.,	2d “
Eveleth “	C. W. Waddell, A.B.,	3d “
“ “	J. L. Huntington, A.B.,	3d “
“ “	J. P. Leake, A.B.,	3d “
Edward Wigglesworth “	H. S. Bernstein, A.B.,	2d “
Charles B. Porter “	J. E. Overlander, Ph.B.,	1st “
John Thomson Taylor “	E. D. Bond, A.B.,	2d “
Lucius F. Billings “	D. Gregg, A.B.,	3d “
Orlando W. Doe “	F. H. Allen, A.B.,	3d “
Charles Pratt Strong “	A. H. Crosbie, A.B.,	4th “
David Williams Cheever “	S. W. Cornish, A.B.,	1st “
Lewis and Harriet Hayden “	E. D. Brown, A.B.,	3d “
Anonymous Gift, (½)	R. H. Goldthwaite, A.B.,	4th “
“ “ (½)	R. A. Quigley, S.B.,	2d “
Cotting Gift,	F. H. McCrudden, S.B.,	2d “

The George Cheyne Shattuck Fellowship was awarded Henry A. Christian, A.M., M.D., for studies carried on during the past year in the following subjects: Multiple myeloma. Solid teratomata of the mediastinum. Diseases of the mediastinum.

The Charles Eliot Ware Fellowship was awarded S. Burt Wolbach, M.D., for a study of the organisms isolated from cases of cutaneous blastomycosis, and coccidioidal granuloma.

The John Ware Fellowship was awarded Frederic T. Lewis, A.M., M.D., for the study of mammalian embryos in the Harvard Embryological Collection.

The statistics of the School will be found in the following tables:

COURSES OF INSTRUCTION, 1905–06.

FIRST YEAR.

	Students examined.
Anatomy. — Professor T. Dwight, Demonstrator Warren, Assistant Flagg, Assistant Mosher, Instructor Davis, Assistant Butler, Assistant Marcy, Assistant Wadsworth, Assistant Cheever, Assistant Binney, Assistant Scannell, Assistant Robinson.	65
Physiology. — Professor H. P. Bowditch, Associate Professor W. T. Porter, Asst. Professor Cannon, Instructor Lillie.	86
Histology and Embryology. — Professor Minot, Assistant Donoghue, Assistant Wright, Instructor Bremer, Instructor Lewis, Austin Teaching Fellow Thyng.	72
Physiological and Pathological Chemistry. — Instructor Alsberg, Instructor Henderson, Instructor Hewes, Assistant Connolly.	67

SECOND YEAR.

Bacteriology. — Professor Ernst, Assistant Page, Assistant Perry, Assistant Worthington, Assistant Palfrey, Assistant Everett, Assistant Baker, Austin Teaching Fellow Frothingham.	67
Pathology and Pathological Anatomy. — Professor Councilman, Associate Professor Mallory, Asst. Professor Nichols, Instructor Wright, Assistant Wolbach, Instructor Brinckerhoff, Instructor Southard, Assistant Low.	67
Comparative Pathology. — Professor T. Smith, Instructor Brinckerhoff, Assistant Low, Assistant Wolbach, Austin Teaching Fellow Holt.	
Hygiene. — Asst. Professor Harrington, Assistant Magrath.	73
Theory and Practice. — Professor Fitz, Instructor Cutler, Assistant Stone, Instructor Joslin, Assistant White, Assistant Badger, Assistant Pratt.	
Clinical Medicine. — Professor Shattuck, Asst. Professor Sears, Instructor Vickery, Assistant J. M. Jackson, Instructor Cabot, Instructor H. Jackson, Assistant Robey, Assistant Denny, Assistant Locke, Assistant Lord.	
Surgery. — Professor Warren, Professor Richardson, Professor Burrell, Asst. Professor Nichols, Instructor Lothrop, Instructor J. B. Blake.	

THIRD YEAR.

Therapeutics. — Professor Pfaff, Instructor Tyrode, Assistant Nelson.	76
Theory and Practice of Medicine. — Professor Fitz, Instructor Cutler, Assistant Stone, Instructor Joslin, Assistant White, Assistant Badger, Assistant Pratt.	73
Obstetrics. — Professor W. L. Richardson, Associate Professor C. M. Green, Instructor Newell, Assistant Swain, Assistant Friedman, Assistant Torbert.	69
Otology. — Professor Blake.	69
Ophthalmology. — Asst. Professor Standish, Assistant Jack, Instructor Quackenboss, Assistant Clap, Assistant Spalding, Assistant Haskell.	75
Laryngology. — Clinical Instructor Coolidge, Clinical Instructor Farlow, Clinical Instructor DeBlois, Assistant Coffin.	69
Syphilis. — Instructor Post, Assistant C. M. Smith.	70
Clinical Obstetrics. — Professor W. L. Richardson, Associate Professor C. M. Green, Instructor Newell, Assistant Swain, Assistant Friedman, Assistant Torbert.	
Dermatology. — Asst. Professor Bowen.	72
Diseases of the Nervous System. — Professor Putnam, Assistant Waterman.	72
Pediatrics. — Professor Rotch, Asst. Professor McCollom, Clinical Instructor Craigin, Instructor Morse, Assistant Ladd, Assistant Dunn.	71
Psychiatry. — Instructor Cowles.	73
Gynaecology. — Associate Professor Green, Assistant Storer, Assistant Newell, Assistant Young.	70
Surgery and Clinical Surgery. — Professor Warren, Professor M. H. Richardson, Professor Burrell, Professor Bradford, Instructor Thorndike, Instructor Lothrop, Lecturer Gay, Lecturer Monks, Assistant Lund, Assistant Balch, Assistant Crandon, Instructor Porter.	72
Genito-Urinary Surgery. — Lecturer Watson, Instructor Thorndike.	
Clinical Medicine. — Professor Shattuck, Asst. Professor Sears, Assistant Bartol, Instructor H. Jackson.	76

The following elective work was done by the students of the fourth year, under the supervision of the heads of Departments: —

FOURTH YEAR.

Anatomy	36	Surgery	66
Bacteriology	3	Orthopedics	35
Pathology	15	Surgical Pathology	8
Neuropathology	5	Obstetrics	39
Hygiene	4	Gynaecology	28
Clinical Medicine	71	Dermatology	13
Theory and Practice	28	Neurology	14
Pediatrics	63	Ophthalmology	8
Clinical Surgical Pathology	4	Laryngology	8

GENERAL STATISTICS OF THE SCHOOL.

New matriculants	79

The whole number of students in attendance: —

In courses for graduates	77
Fourth Class	66
Third Class	55
Second Class	72
First Class	79
Total	349

Applicants for Degree (February)	12
Applicants for Degree (June)	75
Rejected	6
Graduated	81

Of the 81 students who received the degree of Doctor of Medicine, 20 received the degree *cum laude*.

	Summer Courses.					Graduate Courses.				
	1902.	1903.	1904.	1905.	1906.	1901–02.	1902–03.	1903–04.	1904–05.	1905–06.
Courses taken	145	188	177	222	306	30	57	59½	88	104
Students	130	148	135	173	192	25	41	49	72	77
Receipts	$4400	$5280	$4942	$6497	$8798	$700	$1400	$1446	$2207	$2663

The following statement by Dr. Mallory in regard to the Summer Courses is of great practical interest.

A larger number of Summer Courses were taken and more fees received this year than in the previous one. There was also an improvement last year over the year before. A careful analysis of the past three years is not entirely encouraging, however, because the increase has been due almost wholly to the courses offered by one instructor, Dr. R. C. Cabot. The first of the following tables shows that the number of different courses offered has been cut down from 126 to 75, and the number of courses not taken by any one from 57 and 64 to 25. This apparent decrease is due to the method of counting courses adopted this year. If each repetition of a course were counted a separate course, as in the past, the figures would read 141 and 67 instead of 75 and 25.

TABLE I.

	Number of different courses offered.	Number of courses taken by no one.
1904	126	57
1905	124	64
1906	75	25

The second table shows the total number of courses taken and the total receipts; to it are added the number of students who took Dr. Cabot's courses in 1905 and 1906 (none was offered in 1904), and the amounts he received in fees, which in 1906 was over half of all the money taken in. The subtraction of these figures shows what the Summer Courses would have amounted to without his students.

TABLE II.

	Total number of courses taken.	Total receipts.	Dr. Cabot.	Other instructors.
1904	177	$4942	. .	177 $4942
1905	222½	6497	41 $1230	181½ $5267
1906	306	8793	139 $4485	167 $4308

An analysis of the variations in the attendance on the courses offered by the different departments was made to see if they, especially medicine, were affected by the numbers taking Dr. Cabot's courses. These variations are seen in Table III.

TABLE III .

	Anatomy.	Physiology.	Chemistry.	Pathology.	Bacteriology.	Hygiene.	Pharmacology.	Medicine.	Pediatrics.	Surgery.	Orthopedics.	Obstetrics.	Gynaecology.	Dermatology.	Neurology.	Ophthalmology.	Otology.	Laryngology.
1904 . .	6	10	14	18	12½	0	. .	23¾	5	19	4	31	2	6	3	1½	7	9
1905 . .	12	10	2	24	7	0	. .	62	9½	23	6	35	6	3	2	2	6	5
1906 . .	8	6	2	7	10	2	6	163	14	31	5	29	7	3	1	1	3	5

Chemistry and Pathology show marked losses, due largely to the fact that the elementary courses offered in these subjects were given up, and, in the case of Pathology, to the further fact that in the practical course the number of autopsies has dropped to less than one third of what it used to be. Other departments show moderate fluctuations or healthy increase, except medicine, where the growth has been phenomenal, even after deducting Dr. Cabot's courses.

TABLE IV

	Medicine.	Dr. Cabot.	Other instructors.
1904	23¾	. . . .	23¾
1905	62	41	21
1906	163	139	24

If the total number of laboratory and clinical courses taken are compared with each other, the result is striking even after deducting what is due to the courses offered by Dr. Cabot; the attendance on laboratory courses is steadily diminishing, while that on clinical courses is steadily increasing, as is shown in Table V.

TABLE V

	Laboratory courses.	Clinical courses.	Dr. Cabot.	Other instructors.
1904	60½	111¼	. . . .	111¼
1905	55	161½	41	120½
1906	41	262	139	123

An examination to find out from what sections of the country the summer students this year came gives the following results: —

TABLE VI

	New England States.	Middle Atlantic States.	Southern States.	Central States.	Western States.	Canada.	Germany.
Students taking Dr. Cabot's courses	23	16	11	14	6	1	0
Students taking courses of other instructors	72	20	9	14	9	1	1

Twenty-three men from New England and forty-eight from elsewhere attended Dr. Cabot's courses, while seventy-two from New England and fifty-four from elsewhere took the courses offered by other instructors; in other words, over two-thirds of Dr. Cabot's students came from outside of New England, while only a little over two-fifths of the students attending other courses came from that source.

It is difficult to draw any hard and fast conclusion from this brief examination of the Summer Courses and form a knowledge of their character, but the following may be suggested: —

Research and advanced courses attract but few students in summer.

Practical courses are successful only when there is an abundance of material for the use of the students.

Elementary courses, more or less didactic in their method of instruction, can be made to attract large numbers. They draw men who have to make up examinations; who have had inefficient instruction elsewhere in a given subject; who wish to hear another man cover the same ground, but in a different way, over which they have just been, or who wish to review and get up to date on subjects studied years ago.

The Harvard Medical Alumni Association has shown its interest in the School in a most welcome and practical manner by the creation of an Alumni Fund. Twelve hundred dollars has been received for expenditure during the current year. In accordance with the wishes of the Association this sum has been utilized in the payment of salaries to a few instructors and assistants who will devote the whole or a large part of their time to teaching. The students will at once receive the advantages of this fund by the better instruction which is thus afforded.

In addition to the amount received for current expenses, a sum in the neighborhood of twenty-five hundred dollars has been collected and turned over to the Corporation to form the basis of a permanent Medical Alumni Fund. It is the wish of the Association that this fund shall be allowed to accumulate until it reaches one hundred thousand dollars, when the income is to be expended according to the vote of the Faculty.

A gift of ten thousand dollars has been received from a modest donor for the endowment of an instructorship in the Department of Theory and Practice. It is hoped that this precedent will encourage the endowment of other positions for instructors and assistants. It is the purpose of the School to develop future teachers, and endowments of this character, and funds like that created by the Medical Alumni Association, afford the means to that end.

FINAL EXAMINATIONS.

	1902.				1903.				1904.				1905.				1906.			
	Passed.	Failed.	Total.	% Failed.	Passed.	Failed.	Total.	% Failed.	Passed.	Failed.	Total.	% Failed.	Passed.	Failed.	Total.	% Failed.	Passed.	Failed.	Total.	% Failed.
First Class:—																				
Histology	71	7	78	9	70	5	75	7	68	4	72	5	54	6	60	10	66	6	72	8
Physiological and Pathological Chemistry	64	12	76	16	71	2	73	3	67	3	70	4	54	5	59	8	60	7	67	10
Anatomy	71	18	89	20	72	10	82	12	69	3	72	4	56	1	57	1	57	8	65	12
Physiology	68	13	81	16	66	33	99	33	50	34	84	40	60	19	79	24	69	17	86	18
Second Class:—																				
Pathological Anatomy	143	17	160	11	58	15	73	20	70	4	74	5	58	9	67	13	60	7	67	10
Therapeutics	108	68	176	38	67	39	106	37	. .	. .	. .	.	. .	. .	. .	.	. .	. .	. .	.
Bacteriology	135	19	154	12	68	9	77	12	64	8	72	11	53	10	63	16	61	6	67	9
Hygiene	. .	. .	. .	.	. .	. .	. .	.	64	3	67	4	63	4	67	6	69	4	73	5
Third Class:—																				
Theory and Practice	111	10	121	8	137	6	143	4	71	1	72	1	67	4	71	5	72	1	73	1
Surgery	110	5	115	4	132	8	140	6	65	2	67	3	63	0	63	0	60	2	62	3
Obstetrics	111	11	122	9	121	22	143	15	68	10	78	13	70	8	78	11	65	4	69	6
Pediatrics	120	3	123	2	128	12	140	9	70	6	76	8	69	6	75	8	68	3	71	4
Dermatology	113	19	132	14	131	16	147	11	66	10	76	13	71	2	73	3	68	4	72	5
Gynaecology	117	6	123	5	130	16	146	11	71	7	78	9	70	3	73	4	61	9	70	13
Neurology	116	7	123	5	139	8	147	6	73	6	79	7	67	5	72	7	68	6	72	9
Therapeutics	. .	. .	. .	.	. .	. .	. .	.	. .	. .	. .	.	61	11	72	15	48	28	76	37
Clinical Medicine	. .	. .	. .	.	. .	. .	. .	.	. .	. .	. .	.	63	6	69	9	70	6	76	8
Clinical Surgery	. .	. .	. .	.	. .	. .	. .	.	. .	. .	. .	.	67	1	68	1	72	0	72	0
Syphilis	. .	. .	. .	.	. .	. .	. .	.	. .	. .	. .	.	69	1	70	1	70	0	70	0
Ophthalmology	. .	. .	. .	.	. .	. .	. .	.	. .	. .	. .	.	62	4	66	6	69	6	75	8
Otology	. .	. .	. .	.	. .	. .	. .	.	. .	. .	. .	.	68	0	68	0	64	5	69	8
Laryngology	. .	. .	. .	.	. .	. .	. .	.	. .	. .	. .	.	65	4	69	6	69	0	69	0
Psychiatry	116	11	127	8	136	6	142	4	71	5	76	6	74	0	74	0	70	3	73	4

Fourth Class. — Electives: —																				
Anatomy	14	0	14	0	19	0	19	0	33	1	34	1	11	0	11	0	36	0	36	0
Embryology	1	1	2	50	2	0	2	0	2	0	2	0								
Physiology													2	0	2	0				
Clinical Chemistry	3	0	3	0	2	0	2	0	3	0	3	0	1	0	1	0				
Bacteriology	5	0	5	0	1	0	1	0									3	0	3	0
Pathology																	15	0	15	0
Neuropathology																	5	0	5	0
Hygiene	5	0	5	0									2	0	2	0	4	0	4	0
Medicine																	70	1	71	1
Theory and Practice																	28	0	28	0
Pediatrics																	63	0	63	0
Clinical Surgical Pathology	7	1	8	12	12	0	12	0	15	0	15	0	2	0	2	0	8	0	8	0
Surgery	79	2	81	2	78	0	78	0	77	0	77	0	42	0	42	0	66	0	66	0
Orthopedics	37	1	38	2	25	0	25	0	22	0	22	0	31	0	31	0	35	0	35	0
Surgical Pathology																	3	0	3	0
Obstetrics	87	11	98	11	64	0	64	0	94	2	96	2	54	3	57	5	39	0	39	0
Gynaecology	14	1	15	7	25	0	25	0	16	0	16	0	13	0	13	0	28	0	28	0
Dermatology	64	4	68	6	47	2	49	4	57	3	60	5	30	5	35	14	13	0	13	0
Neurology	7	2	9	22	7	0	7	0	5	0	5	0	5	2	7	28	14	0	14	0
Ophthalmology	6	0	6	0	7	0	7	0	4	0	4	0	5	0	5	0	3	0	3	0
Otology	1	0	1	0	4	0	4	0	3	0	3	0	2	0	2	0				
Laryngology																	8	0	8	0

A gift of two hundred and fifty dollars to promote the study of Diabetes Mellitus has been employed in connection with the Proctor Fund for the Study of Chronic Disease. Three-fourths of the entire time of one assistant in chemistry will be devoted to this object, while a salary paid by the School secures the remainder of the assistant's time for teaching. Gifts of a similar nature could be well employed in other departments. If the facilities which the School has to offer for the study of disease were made plain by the Alumni to their patients and friends, undoubtedly similar contributions would be received.

WILLIAM L. RICHARDSON, *Dean.*

THE DENTAL SCHOOL.

To the President of the University: —

Sir, — As Dean of the Dental School I have the honor to submit the following report for the academic year 1905–06.

The number of students enrolled was 86, divided as follows: —

Post-Graduate student	1
Third-year students	42
Second-year students	23
First-year students	20
	86

There were forty-two candidates for the degree in June, eight of whom failed in the final examinations, leaving a graduating class of thirty-four, four of whom received the degree *cum laude*.

Instruction was given as follows: —

Anatomy. — Professor T. Dwight, Demonstrator Warren, Assistants Flagg, Mosher, Butler, Marcy, Davis, Norton, Wadsworth, Cheever, Scannell, and Robinson. 424 hours.

Physiology. — Professor H. P. Bowditch, Associate Professor Porter, Assistant Professor Cannon, Instructor Lillie. 348 hours.

Histology and Embryology. — Professor Minot, Assistant Donoghue, Instructors Bremer, Lewis, Wright. 252 hours.

Physiological and Dental Chemistry. — Austin Teaching Fellow Smith. 302 hours.

Bacteriology. — Professor H. C. Ernst, Instructor Hill, Assistants Page, Robey, Palfrey, Baker, Perry, Everett, Austin Teaching Fellow Frothingham. 160 hours.

Materia Medica and Therapeutics. — Professor E. C. Briggs, 32 lectures; Instructor Rodgers, 44 recitations.

Dental Pathology. — Professor C. A. Brackett. 32 lectures.

Neurology. — Instructor E. W. Taylor. 4 lectures.

Crown and Bridge Work. — Assistant Professor Cooke, 32 lectures; Assistant Professor Cooke, Instructors Eldred and Estabrooks, 32 clinics.

Mechanical Dentistry and Orthodontia. — Professor E. H. Smith. 32 lectures.

Orthodontia. — Professor E. H. Smith, Instructors Baker and Reoch. 32 clinics.

Mechanical Dentistry and Orthodontia, Juniors. — Instructor Baker. 10 lectures.

Mechanical Dentistry. — Clinical Instructor J. D. Dickinson. 24 hours.

Mechanical Dentistry, Laboratory, Seniors. — Demonstrator Cross, Instructors Hadley, Parsons, Hayden, Chute, Haley, Spinney, Dill, and J. W. Dickinson. 496 hours.

Mechanical Dentistry, Laboratory, Juniors. — Demonstrator Cross, Instructors Crofwell, Codman, Davis, Langley, King, and Dort. 544 hours.

Anatomical Articulation, Mechanical Treatment of Fractured Jaws, Cleft Palates, and other Deformities. — Demonstrator Cross. 21 lectures.

Extracting and Anaesthesia (Demonstrations). — Instructors Farrington, Hart, Marston, Squarebrigs, O'Brien, and Miner. 477 hours.

Continuous Gum and Porcelain Inlay Work and Carving Teeth. — Clinical Lecturer Stoddard, 18 lectures and demonstrations, 16 clinics; Instructor Moffatt, 4 clinical lectures, 8 demonstrations.

Operative Dentistry, Seniors. — Professor Potter. 32 lectures.

Operative Dentistry, Juniors. — Lecturer Bradley. 32 lectures.

Operative Dentistry. — Clinical Instructor Werner. 13 lectures and demonstrations.

Operative Dentistry and Dental Jurisprudence. — Clinical Lecturer Clapp, 12 lectures; Instructor Starratt, clinical assistant.

Operative Dentistry, Samaritan Hospital. — Instructor Rogers. 32 clinics.

Operative Dentistry, Infirmary, Juniors. — Lecturer Bradley, Assistant Demonstrator D. W. Dickinson, Instructors Littig, Elliott, Whitehill, and Pike. 403 hours.

Operative Dentistry, Infirmary, Seniors. — Lecturer Bradley, Assistant Demonstrator D. W. Dickinson, Instructors Eddy, Blaisdell, Furfey, and Paul. 624 hours.

Oral Surgery. — Instructor Shuman. 6 lectures; 32 clinics.

Surgical Pathology and Surgery. — Lecturer Monks, 10 lectures and demonstrations; Instructor Blake, 5 clinics at the Boston City Hospital.

The work of the School is shown in the following tables: —

OPERATIVE DEPARTMENT.

No. of patients treated	7,826
" treatments of teeth and gums	2,027
" sets of teeth cleansed	1,425
" operations	18,078
" fillings — gold	2,343
" " amalgam	2,267
" " cement	1,574
" " gutta percha	2,742
" porcelain inlays	176
" gold inlays	16
" combinations	140

Surgical Clinics.

No. of cases of necrosis	7
" " abscess	13
" " antrum disease	4
" " epulis	6
" " cleft palate	1
" " syphilis	4
" " impacted wisdom teeth extracted	5
" " growth on lips	3

MECHANICAL DEPARTMENT.

Service to Patients.

No. of sets of artificial teeth	199
" " " " repaired	111
" partial sets of artificial teeth	164
" appliances for fractured jaws	18
" obturators and appliances for cleft palates	11

Practice Work.

No. of specimen plates	225
" plates repaired	21

ORTHODONTIA.

Service to Patients.

No. of patients treated for irregularities of the teeth	127
" appliances	173
" articulated models of regulating cases	131

Practice Work.

No. of articulated models of regulating cases	22
" appliances	92

CROWN AND BRIDGE WORK.

Service to Patients.

No. of crowns and caps	226
" crowns repaired	29
" pieces of bridge work	77
" " " repaired	13
" porcelain tips	4
" carved crowns	29

Practice Work.

No. of crowns and caps	92
" bridges	54
" porcelain inlays	33
" carved teeth models	30

On Saturday afternoons during January, February, and March special clinical instruction was given to third-year students as follows: —

Professor William H. Potter.	Porcelain Inlays.
Dr. J. Morgan Howe, New York.	Amalgam in Large Bicuspids and Molar Cavities.
Dr. Henry F. Libby.	Welding of Gold by Burnishing.
Dr. Cecil P. Wilson.	Welding of Gold by Malleting.
Professor Edward C. Briggs.	The Making of a Porcelain Crown.
Dr. Henry W. Gillett, New York.	The Use of Gold in a Compound Filling in a Bicuspid.
Dr. William D. Tracy, New York.	Gold Inlays.

In May, 1906, at the request of Mrs. Francis Crowninshield, the School took charge of the examination of the teeth of the inmates of the Sunny Side Day Nursery. The work was conducted by Benjamin Tishler, D.M.D.

In May and June, 1906, Professor Potter took charge of the work of the examination of the teeth of the pupils of the Pierce School of the town of Brookline. Seven hundred mouths were examined and the results tabulated. This examination was instituted to determine the advisability of making an examination of the teeth an established custom in the Brookline Schools. Professor Potter was assisted by Drs. D. F. Spinney, E. N. Kent, and E. B. Wyman.

H. Carlton Smith, Ph.G., Austin Teaching Fellow in Dental Chemistry, has conducted a series of experiments with fruit juices to determine their comparative action upon tooth substance. A considerable time has also been spent in determining the composition of some of the artificial enamels on the market; also on the causes of the disintegration of cement fillings in the mouth. Experiments have been carried on relative to the disintegration of amalgam fillings by very weak currents of electricity with a view to determine whether such currents have any appreciable action in the mouth. He has also carried through a set of experiments on the effect of preservative (Formaline) on the activity of saliva as an amylolytic ferment. The composition of various tooth washes, notably Glyco-Thymaline, Sanitol, Borine, and Lythol, has been investigated. The results of these investigations have been used by Dr. Squires in his recent attacks on proprietary articles. During the winter Mr. Smith read a paper before the American Academy of Dental Science, covering the results of his investigations, and also gave two clinics, one at Buffalo before the National Dental Association, and one in Boston before the Massachusetts State Dental Society, demonstrating our methods of research and teaching.

Dr. Harold DeW. Cross has been working on the problem of anatomical articulation as a means to perfect the usefulness of artificial dentures. He has studied the movement of the natural teeth in mastication and made, so far as possible, an accurate reproduction of such movements in artificial teeth with special reference to the angle of the condyle path.

There have been published: —

Chemistry for Dental Students. By H. CARLTON SMITH. John Wiley & Sons, New York.

The Extraction of Permanent Teeth in the Treatment of Mal-Occlusions. Illustrated from cases taken from a period of twenty years' practice. By Professor EUGENE H. SMITH. *The Journal of the New York Institute of Stomatology, etc.* Vol. I. 1906.

For the first time since 1898, a Summer Course in Dentistry was offered to advanced students, graduates, and practitioners. Announcements of the course were mailed throughout the New England and Southern States, with the result that eighteen students, representing nine different states and Africa, attended the course. Instructors in the School volunteered their services and instruction was given as follows: —

Orthodontia. — Professor E. H. Smith, 2 lectures; Instructors Baker and Reoch, 4 hours.

Anatomical Articulation, Maxillary Fractures, Artificial Palates, and Prosthetic Work. — Demonstrator Cross, lectures and demonstrations, 11 hours.

Porcelain and Gold Inlays. — Clinical Lecturer Stoddard, lectures and clinics, 4 hours; Instructor Hadley, clinical demonstrations, 18 hours.

Carving Teeth. — Instructor Moffatt, demonstrations, 8 hours.

Crown and Bridge Work. — Assistant Professor Cooke, lectures and clinics, 4 hours; Instructor Estabrooks, demonstrations, 9 hours.

Operative Dentistry. — Lecturer Bradley, Prophylaxis, lecture, 1 hour; Instructor Elliott, Combination Fillings, lectures and clinics, 4 hours; Clinical Instructor Werner, Contour Fillings, clinics, 4 hours; Instructor Blaisdell, Non-Cohesive Work and Pressure Anaesthesia, clinic and demonstrations, 4 hours.

Operative Dentistry, Infirmary. — Drs. Whitehill, Pike, Furbish, Tishler, O. S. Smith. 40 hours.

Extracting and Anaesthesia. — Professor Potter, clinics, 10 hours; Instructor Squarebriggs, clinics, 10 hours.

Materia Medica. — Instructor Rodgers, lectures, 2 hours.

Dental Chemistry. — Austin Teaching Fellow Smith, lecture, 2 hours. Also a course in General Chemistry and Qualitative Analysis, 175 hours.

Neurology. — Instructor Taylor, lecture, 1 hour.

Oral Surgery. — Instructor Shuman, clinic, 2 hours.

Syphilis. — C. Morton Smith, M.D., Assistant in Syphilis in the Harvard Medical School, lectures and clinics, 4 hours.

Mechanical Dentistry, Laboratory. — Drs. Chute, Eames, Haley, Hayden, Wyman, Kazanjian. 30 hours.

Dr. Frederick Bradley, on account of ill health, was unable to accept a reappointment. Dr. Bradley has served the School under the various appointments of demonstrator, instructor, and lecturer, for fifteen years. He was an excellent teacher, and his resignation is to be regretted.

Dr. Forrest G. Eddy, Instructor in Operative Dentistry since 1888, declined a reappointment. Dr. Eddy was a teacher of unusual force and clearness. He knew his subject well and knew how to impart it to his students. For eighteen years he has practically given his services to the School, as the very small salary he received scarcely paid the cost of his travel from Providence to Boston. Such devotion to the School is deserving of the highest praise, and the loss of his services and personality is to be deplored.

Dr. Dwight M. Clapp, Lecturer in Operative Dentistry, died September 28, 1906. Dr. Clapp was appointed Clinical Instructor in Operative Dentistry in 1882, Clinical Lecturer in Operative Dentistry in 1890, and became a member of the Administrative Board in 1899. Dr. Clapp had thus served the School as a teacher for twenty-four years, and as an administrative officer for six years. As a teacher he was clear and strong, and as an administrative officer he brought to the councils of the Board rare judgment and helpful optimism. He believed in the Dental School and did more than any other one person in the raising of money for its needs. He published several papers of merit, and contributed to a standard work on Operative Dentistry a very excellent chapter on "Combination Fillings." As a member of the Massachusetts State Board of Registration in Dentistry he did much in the raising of educational standards. His was a strong character, and his helpfulness to the School and the profession will long be remembered with gratitude.

EUGENE H. SMITH, *Dean.*

BUSSEY INSTITUTION.

To the President of the University: —

Sir, — I respectfully submit the following report on the Bussey Institution for the academic year 1905–06.

The number of students enrolled was twenty-seven, of whom fifteen were first-year students, seven were second-year students, and five were third-year students. Four students were recommended at Commencement for the degree of Bachelor of Agricultural Science. Beside the above-mentioned professional students, devoted wholly to the acquisition of agricultural and horticultural knowledge, fourteen students of Landscape Architecture enrolled at Cambridge came to the Bussey Institution as guests on stated days to attend lectures on Horticulture.

The usual courses of instruction in Agriculture, Horticulture, Cattle Breeding, Cattle Feeding, Dairying, Agricultural Natural History, Botany, Agricultural Chemistry, Qualitative Chemical Analysis, Land Surveying and Rural Construction were given by Messrs. Hersey, Watson, Morse, Paige, Clarke, Dillingham, Robinette, and Storer. More attention than had previously been customary was given to practical work in the greenhouses under the guidance of Mr. Shedd.

Everyone connected with the School regretted sincerely the resignation of Mr. Edmund Hersey at the close of the academic year, on account of failing health. In spite of his advanced age, Mr. Hersey had during fifteen years lectured most satisfactorily on the farming methods of New England. Of wide practical experience and thoroughly scientific habits of thought he had a gift of expression or even of exhortation unusual in men who have long been occupied with the actualities of agriculture. It is a matter for congratulation that, thanks to his teachings, there have been left with us successors competent to carry on the good work in the light of existing conditions.

Gifts of thirty volumes of books on Chemistry and Natural History were received through Edward Ross Warren, Esq. (A.B. 1888), from the estate of Cyrus Moors Warren (S.B. 1855), and of twelve volumes relating to Agriculture from William Sumner Appleton, Esq. (A.B. 1896).

One hundred dollars in money were contributed by an anonymous association of students to the Instructor of Natural History for the purpose of enabling him to have made several tables to be used in his department.

One Bulletin of the Bussey Institution was published. It contained an account by Mr. Hersey of a field experiment to test the requirements of a peculiar Sandy Loam, and "A Contribution to the History of the Use of Bark Bread," by Mr. Dillingham.

F. H. STORER, *Dean.*

THE LIBRARY.

To the President of the University: —

Sir, — I beg to submit this my ninth annual report on the Library, covering the year 1905–06.

In my last report I set forth, as year by year I have tried to do before, the larger needs of the Library — a building adequate for the storage and use of its great collections, and an endowment sufficient to maintain an expert, scholarly, and numerous staff, able to care properly for the books, and to help students in the use of them. But, there being no immediate prospect of satisfying these larger needs, I turned to an inquiry how the most pressing demands could be best met for the next few years, longer continuance under present conditions seeming impossible. The most economical plan, I thought, "would be to build an extension of the present East stack to the eastward for say fifty feet (the present stack is seventy feet long), with the addition of a one-story or a two-story section along the whole north side of this stack, corresponding to the section on the south side in which the cataloguing rooms and the librarian's office are contained. This would give us shelf-room for some 150,000 more volumes, would permit the enlargement of the Delivery Room, would give additional space for the staff, and some quiet study-rooms for professors and advanced students, besides a small reading-room in which rare books might be kept and used." I am happy to state that a part of this plan is to be immediately realized. For this the Library is indebted to the Visiting Committee of the Board of Overseers, the members of which have taken a lively interest in devising means of relief, and have testified their interest, not only by a strong report to the Overseers, but by a generous contribution toward the expense of carrying out their own recommendations. As a result of the Committee's activity, the Corporation has authorized the construction of an addition along the north side of the East stack, containing two stories and a basement corresponding to the section on the south side of the same wing, which contains one story and basement. The advantages we gain are: an enlarged delivery room; a small reference and reading room opening from it; three rooms for the staff, so that the shelf department and other assistants may be withdrawn from their present quarters in the stack; a room in which all our rare books and many of our manuscripts can be brought together and in which they may conveniently be used; a map room, which will also serve as a study-room; a class-room, in which small classes may meet; store-rooms in the basement; a lunch room for ladies of the staff; and an hydraulic lift. All these improvements facilitate the administration of the Library, and in several ways add to the convenient accommodation of readers. The improvements are most welcome, but it should be observed that no substantial addition to our shelf-room is made by them. A little additional shelving in the basement will be practicable, and probably the sections at the end of alternate rows in the present stack, now occupied by tables, may be filled up, thus giving room for a few thousand volumes. But until some real addition is made to the stack itself, we must see one group after another of our books transferred to the basement of other buildings, where access to them becomes more and more difficult.

Our other great need — more income for administration — must also be remembered, and must be supplied at the earliest possible moment. A gift of a thousand dollars, procured through a member of the Visiting Committee from a lady in Boston, permitted additional work to be undertaken and better care to be given to the shelves throughout the latter half of the year covered by this report, but every year we are confronted by the same difficulty, — on the one hand, an increasing amount of work to be done; on the other, the inability of the College to increase its expenditure on the Library. In a special report made to the Visiting Committee last January, I presented tables comparing the average of the two years 1896–97, 1897–98 with the average of the two years 1903–04, 1904–05. These tables showed that in the course of the seven years the number of volumes annually received had increased 80 per cent. (from 10,810 to 19,465); the income available from funds and gifts for the purchase of books, 74 per cent. (from $13,968 to $24,285); the cards added annually to the public card catalogue, 74 per cent. (from 23,187 to 40,501); while the salary and wages roll of the Library has only grown from $30,696 to $34,059, or less than 11 per cent., and the total cost of administration from $40,663 to $44,624, an increase of less than 10 per cent. This is a bad showing. A moderate difference between the rate of increase in the work to be done and in the expense of doing it implies economy and good management; a large difference argues enforced neglect. It is a fair inference, from these figures, either that the work of the Library was conducted in an extravagant and unreasonably elaborate manner seven years ago, or that, at the present day, it has been cut down by a too stringent economy to a point where some considerable portion of it does not get done at all. That the latter, and not the former, inference is the true one is evident to all who know the

Library. On the completion next year of the addition to the Library, with its new working-rooms, an increase in the staff will be more than ever demanded, and additional income of from two to five thousand dollars a year should be provided from some source.

The Catalogue of English and American Chap-books and Broadside Ballads described in my last report was distributed in December, 1905. The Catalogue of the Molière Collection was finished in the course of the year and was distributed in June, 1906. The preliminary work on the catalogue of the Molière collection was done by Mr. Ernest Lewis Gay, but the whole of the manuscript and the proof, as well as the books themselves, also passed under the careful scrutiny and revision of Mr. Currier. Over 1,300 of the 1,793 volumes comprised in the Molière collection came to us from the private library of Professor Ferdinand Bôcher. It was Professor Bôcher's earnest wish, often expressed during his later years, that his library, or that portion of it which related to his favorite studies, should finally come into the possession of this Library. Through Mr. James Hazen Hyde, of the Class of 1898, this desire was fulfilled. On Professor Bôcher's death Mr. Hyde bought the library as a whole, and presented to the College Library the editions of Molière's works and everything that related in any way to the study of Molière, including early editions of the works of Molière's contemporaries (about 330 volumes). To this he added Professor Bôcher's collection of Montaigne literature (246 volumes and 92 pamphlets), which includes most of the early and rarer editions of the Essays.

The collections thus permanently preserved in the College Library form interesting and appropriate memorials of their former owner, and of his entire devotion to the interests of French literature in Harvard University. As Instructor in French from 1861 to 1865, and as Professor of Modern Languages from 1870 to 1902, he was mainly responsible for the building up of a vigorous French Department in the College. The excellence of the collection of French literature in the College Library is also largely due to the constant care and discrimination which he bestowed upon it. The Library is under obligation to Mr. Hyde for contributing a large part of the cost of preparing the Catalogue, and for permitting us to bind, at his expense, several hundred of the books given by him.

Both the Chap-book and the Molière Catalogues, one of 182 pages, the other of 148 pages, are larger than our Bibliographical Contributions have ordinarily been, and they have exhausted the income of the portion of the Richard Manning Hodges Fund assigned to this use, so that we shall probably not be able to issue another Contribution for some time. Dr. Farlow's Bibliography of American Fungi, now in process of printing, will be paid for from another source. An account of the Ottoman Collection is partly ready for the printer, and will, I hope, when properly revised and completed, be printed. I had expected, before this, to begin the issue of an annual list of the more important accessions to the Library, omitting most of the current books which any large library might be expected to buy, and confining the list to the rare, curious, out of the way, or extensive works which the Library now has the means to acquire as never before. But the expense involved — the expense of the necessary editorial work, even more than the cost of printing — has made such a publication for the present impracticable.

The custom of lending to other libraries and of borrowing from them in return increases from year to year. Statistics in regard to loans made by the Library are given on another page. The number of books borrowed is naturally much less, not because of unwillingness to lend on the part of other libraries, but because our own collection is, without doubt, the richest and the most comprehensive library for a scholar's use in this country. Over fifteen hundred volumes were sent in the course of the last year to other libraries for the use of resident scholars, or in some cases to individuals directly. The labor of attending to almost daily applications for loans, of getting the books together, of dispatching them to their several destinations, and of looking after them again when they are returned, is now considerable, yet this is evidently one of the largest services which the Library renders to scholarship, and one of the most highly prized. I wish that the Library might be better equipped to perform it. With a suitable endowment for this service, a small special staff devoted to it, additional purchases directed to facilitate it, so that, with its growth, the rights of students in Cambridge might not suffer, this Library might usefully conduct a central lending library for the benefit of all other colleges in America. Such a plan would be of the greatest practical value to all the smaller colleges, and could, I believe, be inaugurated here more economically and with larger results than anywhere else.

To call the attention of our own readers to the fact that books in many other libraries are accessible to students here, we have brought together in the Delivery Room, and have placed on the card catalogue case, some seventy-five special catalogues issued by a few of the larger libraries — libraries with which we are in constant communication. These catalogues make no claim to being bibliographies or even reference lists, and the collection has not been arranged with the thought of providing such bibliographies. They are merely lists issued for the purpose (1) of exhibiting the resources of an individual library on some subject of historical importance or current interest (e. g. the list of works on Africa in the Boston Public Library, and the list of works relating to government control of railroads, rates regulation, etc., in the New York Public Library), or (2) of providing a catalogue of a notable collection which the library possesses (e. g. the catalogue of the Barton Shakespeare Collection in the Boston Public Library, and the catalogue of Russian works and works on Slavic history and literature in the Yale University Library). With patience, the collection can be still further increased, and it is surprising to see how much of the material in other libraries has already been recorded in print, and is therefore ready to the hand of searchers elsewhere, if only it is brought to their attention. Our own library has perhaps done less than its share in distributing among other libraries detailed information in regard to its own treasures.

The accessions to the libraries of the University for the year, and the present extent of each are shown in the following table: — *

Accessions.	Volumes added.	Present extent in	
		Volumes.	Pamphlets.
Gore Hall (College Library)	18,072	465,500	316,700
Law School	9,189	96,545	10,608
Divinity School	1,137	35,958	9,681
Medical School	. .	12,000	24,000
Dental School	22	983	9,000
Bussey Institution	102	4,600	. .
Museum of Zoölogy	1,264	42,421	36,322
Peabody Museum	151	3,422	3,070
Astronomical Observatory	458	11,850	23,231
Gray Herbarium	631	9,816	7,900
Arnold Arboretum	2,545	14,485	. .
Twenty-eight Special Reference Libraries	3,764	44,630	. .
Total	37,335		
Deduct, transfers between Gore Hall and Department Libraries	360		
Totals	36,975	742,210	440,512

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* The figures given for all statistics in the present report are for the year ending July 31. In previous reports, statistics relating to the income and expenditure have been for this year, which is the financial year of the College, but other statistics have been for the year ending September 30th. In future, all statistics will relate to the same year, August 1 to July 31.

The accessions to the Law School and to the Arboretum, and the total number of volumes added to all the libraries of the University exceed the records of all previous years. The number of volumes added to the College Library has only been exceeded twice before.

The map collection in the College Library contains 24,723 sheets not included in the above enumeration.

The additions to the College Library for the last five years have been as follows: —

ADDITIONS TO COLLEGE LIBRARY.	1901–02.	1902–03.	1903–04.	1904–05.	1905–06.
Volumes by purchase or exchange .	7,400	7,731	7,870	7,746	11,012
Do. by binding serials	1,359	1,152	1,312	1,760	1,767
Do. by binding pamphlets . . .	610	736	1,104	1,098	943
Do. by gift	4,648	7,358	12,009	6,031	4,350
Total volumes added	14,017	16,977	22,295	16,635	18,072
Maps in sheets	524	1,064	354	2,001	1,112
Pamphlets by purchase or exchange	1,449	1,950	1,217	1,193	2,829
Do. by gift	16,230	13,441	14,259	14,951	14,404
Total gifts (vols. and pams.) . . .	21,914	20,799	26,268	20,982	18,754

The average of the annual accessions of the last four years has been 18,495 volumes, or 18 per cent. larger than the average of the previous four years (15,677), and 69 per cent. larger than the four years before that (10,950). It will be noticed that the number of volumes acquired by purchase or exchange largely exceeds last year's record, but that the number of volumes received by gift is far less than last year. This changed relation, however, hardly corresponds with the actual fact, since, in the previous two years, the books received from Professor Coolidge for the Hohenzollern Collection, having been paid for directly by him, have been counted as gifts, whereas, during the year covered by this report, these gifts, having been paid for through the Library, figure as volumes bought. The same is true of all other volumes bought with gifts of money paid over to the Library. They are essentially gifts, but they have to be recorded as volumes bought, not given, because paid for through the College treasury. In a sense it is true that, not only these volumes, but all books acquired by the Library are gifts, since all the funds from the income of which they are bought were given to the University in the first place. Ordinarily none of the free income of the College is used to buy books for the College Library.

Dr. Malcolm Storer, Curator of Coins, reports that the additions to the collection under his charge during the past year have been chiefly medals, some being of great artistic beauty. Among these is the medal bearing the head of Professor Barrett Wendell, engraved during his lectureship in France; the gold medal given to Professor John K. Paine at the unveiling of the Wagner monument in Berlin; Professor Paine's copy of the medal presented to artists contributing to the Louisiana Purchase Exposition in St. Louis; and medals commemorating the bi-centennial of the Château de Ramezay, the two hundredth anniversary of the settlement of Jews in America, and the two hundredth anniversary of the birth of Benjamin Franklin. Miss Martha C. Codman has given the Phi Beta Kappa medal of her great-grandfather, Benjamin Pickman, of the Class of 1784, one of the earliest members of the Society.

No single great gift of books, like the Norton library, received in 1904–05, or the Von Maurer library, received in 1903–04, can be recorded for the past year, but the number of gifts received, from individuals, from societies, and from national and state governments, has probably been as large as ever. From the Austrian Government, through Hon. Bellamy Storer, American Ambassador at Vienna, have come 169 volumes of the records and documents of the Austrian Reichsrath from 1873 to date. From the Prussian Government, and from many of the German provincial governments — namely, from Brandenburg, Hannover, Hessen-Nassau, Pomerania, Posen, East Prussia, West Prussia, Saxony, Schleswig-Holstein, Silesia, and Westphalia — we have continued to receive their current legislative documents, making a collection of material of this nature of unusual completeness.

From the Japanese Ministry of War, through the kindness of Baron Kikkawa, we received 838 sheets of maps published by the General Staff. The National Library of Chili has sent 23 volumes of Chilian publications. The Geographical and Statistical Institute of Spain and the Commission on the Geological Map of Spain, through the kindness of Señor Azpiazu, have completed our sets of their publications and maps.

Mr. H. Nelson Gay, of Rome, has continued to collect for us volumes and pamphlets on the Italian Risorgimento, as well as to spend for us, to excellent advantage, the modest appropriation made by the Library Council for the same purpose.

Mr. F. E. Chase, of Boston, has continued to send us from time to time dramatic works, and Mr. Ferris Greenslet, of Cambridge, volumes of American poetry. Mr. Alain C. White, Miss Henrietta

Gardiner, and the family of Francis Ellingwood Abbot have also sent us large numbers of books and pamphlets. The Cercle Français presented to the Molière Collection a manuscript score of Lully's music to Molière's "L'Amour Médecin." Dr. Almon D. Hodges, Jr., of the Class of 1889, of Roxbury, through Mr. Frank L. Fish, of Boston, gave to the Library a number of scientific works, which proved useful in the Engineering library, in the library of Mining and Metallurgy, and in the Geological Collection of the Museum.

From Rear-Admiral John G. Walker was received a notable collection of works relating to the Panama Canal and to other great canals, a collection made by Hon. W. Cameron Forbes, of the Class of 1892. For the present, the collection is placed, as a whole, in the Engineering library.

The gifts of money for the purchase of books have been more numerous than ever before. Messrs. Harold J. Coolidge, '92, Ellis L. Dresel, '87, James Loeb, '88, and William Phillips, '93, have continued their annual gifts for the purchase of books on China, the German Drama, Labor periodicals, and London; and Mr. Edwin S. Mullins, '93, and Mrs. George A. Nickerson, of Brookline, their annual gifts for books on Folk-lore.

Professor A. C. Coolidge's gifts have amounted to $6,338.88, of which $4,646.19 was for books, the balance, $1,692.69, covering the expense of Mr. Lichtenstein's expedition in Europe.

Mr. Alexander Cochrane, of Boston, gave $1,250 for books on Scottish History and Literature, by which our collections in that department have been very notably increased.

From an anonymous donor, through Professor A. C. Coolidge, was received $1,000 to be spent on Dutch History, the books to be known as the John Lothrop Motley Collection. An intimation of further gifts from the same donor, for the same purpose, has been received.

Gifts amounting to $1,025 were received from Messrs. Francis R. Appleton, '75, Francis S. Blake, '93, Ernest B. Dane, '92, and Edgar H. Wells, '97, for early editions of English authors.

Gifts amounting to $225, from Messrs. I. Tucker Burr, '79, George H. Earle, Jr., '04, Professor F. W. Taussig, '79, John E. Thayer, '85, and Charles G. Washburn, '80, have been spent for early works on Economics.

Dr. Hiram Bingham, who still retains the title of Curator of South American History and Literature, added to his former gifts $25 to be spent for books on South America.

Mr. Blair Fairchild, '99, has given $25 to be spent for books on Paris.

Hon. Edwin V. Morgan, '90, formerly Minister to Korea, and now American Minister to Cuba, authorized the Library to buy books on Korea at his expense.

The Dante Society has added another $150 to its former gifts to be spent on the Dante Collection.

The total amount received in this way for the purchase of books on specific subjects was $8,937.38.

SPECIAL REFERENCE LIBRARIES.

The present extent of these libraries is as follows: —

Special Reference Libraries.	Permanent.	On Deposit.	Totals.
1. Chemical Lab. *Boylston Hall*	900	1,044	1,944
2. Physical Lab. *Jefferson Phys. Lab.*	53	369	422
3. Botanical Lab. *University Museum*	589	124	713
4. Geological Lab. *Do.*	124	. .	124
5. Mineralogical Lab. *Do.*	540	231	771
6. Phys. Geography Lab. *Do.*	343	226	569
7. Zoölogical Lab. *Do.*	278	. .	278
8. Classics. *Harvard Hall 3*	4,007	148	4,155
9. History. *Harvard Hall R. R.*	3,147	114	3,261
10. United States History. *Harvard Hall R. R.*	899	8	907
11. Political Economy. *Do.*	1,354	21	1,375
12. Social Ethics. *Emerson Hall.*	1,810	6	1,816
13. Child Memorial (English). *Warren House*	4,550	90	4,640
14. Lowell Memorial (Romance). *Do.*	1,523	6	1,529
15. German. *Do.*	1,293	. .	1,293
16. French. *Do.*	2,573	. .	2,573
17. Sanskrit. *Do.*	942	29	971
18. Semitic. *Semitic Museum*	1,494	. .	1,494
19. Mathematics. *Sever 22*	596	80	676
20. Mining and Metallurgy. *Rotch Laboratory*	47	21	68
21. Engineering. *Pierce Hall*	6,622	525	7,147
22. Music. *Holden Chapel*	455	. .	455
23. Philosophy (Robbins Library and Psychol. Lab.). *Emerson Hall.*	2,570	43	2,613
24. Education. *Lawrence Hall*	5,643	. .	5,643
25. Fine Arts (incl. Gray and Randall Coll.). *Fogg Museum*	956	. .	956
26. Architecture. *Robinson Hall*	1,075	13	1,088
27. Preachers' Library. *Wadsworth House*	95	. .	95
28. The Study. *Phillips Brooks House*	59	. .	59
29. Social Service Committee. *Phillips Brooks House*	93	. .	93
Totals	44,630	3,098	47,728

The total number of volumes added to these special libraries in the course of the year has been 3,764, the largest additions being in Classics, 140; History, 221; Social Ethics, about 650; Philosophy, 1,863; Education, 253.

On the completion of Emerson Hall, the libraries of the Department of Philosophy and of the Department of Social Ethics were transferred to this building, the one from Dane Hall, the other from Harvard Hall.

In order that the library of Philosophy might be greatly enlarged and become worthy of the new building of the Department, Mr. Reginald C. Robbins, '92, of Boston, gave $4,000. The Robbins Library of Philosophy covers the history of philosophy, metaphysics, logic, æsthetics, ethics, and the philosophy of religion. The collection on psychology, belonging to the Psychological Laboratory, is shelved in the same room. Mr. Robbins's gift has been devoted, at his request, to the other divisions of the field in which the collection was deficient or entirely wanting. Dr. Benjamin Rand, '79, has been placed in immediate charge of the library. Professor Royce has presented to the Robbins Library his remarkable Schelling collection of 151 books and pamphlets, including first editions of most of the philosopher's writings and many volumes of contemporary criticism.

The library of Social Ethics has also grown rapidly, being generously supported by special funds belonging to the Department. Under the care of Dr. D. C. Rogers it has been very carefully reclassified on a system admirably adapted to the needs of the Department, and one which can be equally well applied to the illustrations, charts, etc., of the Department's museum. Mr. Heald, of the Shelf Department in the College Library, had charge of the classification and installation of the Philosophical library, and assisted Dr. Rogers in the classification and renumbering of the library of Social Ethics.

We are again indebted to Dr. K. G. T. Webster, who bore the expense of opening the libraries in the Warren House during the evening from May 1 to the end of the year.

USE OF BOOKS IN THE COLLEGE LIBRARY.

The table on the following page shows the use of books at Gore Hall in 1905–06 as compared with previous years.

The constant decline for three years in the number of books lent from the Library is somewhat puzzling. It is probably due, at least

Use of Books.	1899–00.	1900–01.	1901–02.	1902–03.	1903–04.	1904–05.	1905–06.
1. Books lent	63,712	63,673	58,443	63,183	62,861	59,021	56,875
2. Used in the building . (Recorded use only.)	23,715	24,180	22,583	24,924	23,111	26,565	26,558
Total	87,427	87,853	*81,026	88,107	85,972	85,586	83,433
3. Over-night use of Reference Books.							
Gore Hall				386	3,990	6,485	5,662
Harvard Hall . . .	13,460	13,566	13,594	12,861	12,644	14,268	11,452

in part, to the fact that during the last two years we have bought fewer popular books, our income for books having been diminished, first, by a thousand dollars a year withdrawn in the interest of general economy, and then by five hundred dollars more for the purpose of increasing the expenditure for administration. It is noticeable that interesting books placed on the open shelves in the Delivery Room, whether new or old, are in most cases quickly taken up by borrowers, but recently, with the pressure of other work, less pains have been taken to set out on these shelves anything but new accessions. This autumn, interesting books are constantly being picked out from the stack and placed here, and the increase in the number of books borrowed is immediate.

The diminution in the number of books borrowed for overnight use from Harvard Hall is caused by the removal of the reference library of Social Ethics to its new rooms in Emerson Hall. This library is now open in the evening, and its books are therefore not lent for overnight use.

Of the constant use of the reserved books in the reading-room, and of the collections of reference books, periodicals, and United States documents, freely accessible to all, no record is possible. The use of the reading-room has, however, increased so much in the last few years that a second attendant is now needed at the desk, besides the page. A page is also employed in the evening in addition to the single attendant then on duty.

The books shelved in the reading-room, together with those in the various special reference libraries in Harvard Hall, Warren House, and elsewhere, amount altogether to over 72,000 volumes to which

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* The decline in the figures for this year is probably to be ascribed to errors in the statistics.

direct access can be had by all students to whom they are of value. In addition the library of the Harvard Union now offers to its members over 7,000 books, mainly literature, biography, history, travel, and sport.

The extent of these open reading-room collections and their growth is shown in the following table: —

OPEN COLLECTIONS.	1901–02.	1902–03.	1903–04.	1904–05.	1905–06.
Bound Periodicals	3,210	3,266	3,341	3,516	3,288
Reference Books	4,393	4,471	4,645	4,685	4,800
Reserved Books	10,141	10,398	10,514	10,904	11,055
U. S. Documents	4,389	4,523	4,300	4,481	5,199
Totals	22,133	22,658	22,800	23,586	24,342

Cards of admission to different sections of the book-stack continue to be given, on recommendation of an instructor, to all advanced students who need to go directly to the shelves for purposes of investigation in connection with their work. Such students have the same facilities for the examination and study of all the resources of the Library, in their own departments, that the officers of instruction enjoy. The use of these cards of admission to the book-stack is shown in the following table: —

ADMISSION TO THE BOOK-STACK.	1898–99.	1899–00.	1900–01.	1901–02.	1902–03.	1903–04.	1904–05.	1905–06.
History	78	112	81	90	118	92	122	105
Science	43	30	36	37	45	38	28	36
Art and Archaeology (including Music)	38	33	33	55	46	42	57	28
Literature	90	85	74	80	125	144	107	131
Classics	60	70	58	70	73	62	57	58
Philosophy	19	19	22	27	31	22	18	11
Theology	5	1	1	14	2	9	8	13
Economics and Sociology	12	13	13	16	33	26	38	23
Education	8	4	7	4	25	10	11	9
Geography	2	3	9	15	6	7	5	3
Publ. of Learned Societies . . .	. .	. .	16	8	7	6	5	1
Total cards given	355	370	350	416	511	458	456	418
Total individuals admitted . . .	279	320	257	301	366	315	354	335
Total times of use	5,826	6,898	6,067	5,551	6,244	6,413	7,172	6,124

The number of individuals admitted is less than the number of cards given out, because the same person often receives permission to use different parts of the book-stack.

During the summer of 1906, in addition to the students of the Summer School, 65 professors and instructors from 46 different colleges came to Cambridge for purposes of study, and were made welcome in the Library. 1,575 volumes have been sent from the Library to 72 different colleges, schools, and public libraries, and in some cases to individuals residing at a distance. This is a large increase over the corresponding number sent in any previous year. So far as is known, no serious inconvenience has been caused to scholars working in this Library by the temporary withdrawal of books wanted elsewhere, and it is a satisfaction to be able to place books which are not often wanted here in the hands of persons who actually need them.

Six hundred and eighty-seven volumes have been lent to Radcliffe College for the use of its students. Application for these books is made through the librarian of Radcliffe, and the books are carried back and forth between Radcliffe College and the Harvard Library by a messenger. Radcliffe students also visit the Library, and have the use of one table in the smaller reading-room. In special cases they are also allowed access to the stacks, but the use of reserved books in the reading-room by our own students is so constant, and the pressure for reading space in the stack is so great, that the access of Radcliffe students is necessarily limited.

The Sunday use of the reading-room is shown in the following table. The room is open, to readers only, every Sunday in term-time from one to half-past five in the afternoon.

SUNDAY USE.	1898–99.	1899–00.	1900–01.	1901–02.	1902–03.	1903–04.	1904–05.	1905–06.
Sundays open	35	35	35	36	35	36	34	34
Users	5,093	4,846	5,471	4,909	5,073	4,678	4,953	4,737
Average	145	138	156	136	144	129	145	139
Highest number . . .	260	236	226	225	227	173	187	228

SHELF DEPARTMENT.

Mr. Frank Carney, who has charge of the current work of the shelf department, reports 14,647 volumes permanently located in the stack during the ten months ending July 31, making 359,387 volumes so placed of the entire Gore Hall collection. The total number of volumes and pamphlets passing through the hands of the shelf department has been 26,250. This number covers the work of twelve months, and includes, besides new volumes permanently located, unbound continuations which find their places temporarily in boxes, books rebound and received back from the binder's, and pamphlets. It has been impossible to take up any new sections for reclassification during the year, but, with the help of volunteer service from Simmons College, a beginning has been made in withdrawing old text-books from certain classifications and combining them in a separate text-book collection. Such a collection is of real interest and value to the student of education, whereas in the subjects to which they relate the books only cumber the shelves. It is not proposed to separate in this way the newer books from their proper subjects, nor to remove older books which have distinct historical significance.

Nearly 95,000 volumes remain unclassified, — a number which increases year by year, when no advance is made in the reclassification of the Library. The books in this unclassified collection are principally those relating to general history and geography, theology and ecclesiastical history, political science, Oriental history and literature, bibliography, sports, and some other minor divisions.

No progress has been made in reclassifying the classes mentioned in my last report as needing to be sometime reclassified on account of the unfortunate numbering system adopted in the beginning. The reclassification of German History was completed in the previous year; the reclassification of French History will probably be accomplished in the year now beginning. Other classes, American History, English History, and Folk-lore, numbering over 53,000 volumes, with an annual increase of about 1,250 volumes, should be taken up as soon as possible. French, German, and English literature, and the books on language and classical philology may perhaps be left without eventual reclassification, but of this I do not feel sure.

We have not been obliged to remove from the Library any more groups of books, as has been the case in several recent years. Indeed, some nine hundred volumes of the 25,000 which were reported last year as stored in Robinson Hall and elsewhere have been returned to the Library. These formed a portion of the Von Maurer collection, and have found places here and there among the books permanently classified. We can probably get through the coming year without making any changes, and it is possible that the moderate amount of new shelving which the addition now being built will contain may tide us over another summer. The process of removing one group after another cannot, however, long be interrupted, and some other place of storage than the basement of Robinson Hall will soon have to be found.

The newspapers in the basement of Perkins Hall — a collection of the highest value and altogether unreplaceable — are unavoidably exposed to some danger and to some inevitable deterioration. It will be worth while to inquire whether a place may be found for them temporarily in the new building of the Law School.

In our own building, new shelving has been built where room could be found in unoccupied corners, along the wall under windows, or along passageways from which the necessary width could be spared. Much of this has been done at only slight expense by using, as material, extra shelves already on hand, and employing the services of one of the men in the Library. Even so, in the crowded condition of the Library, books can only be kept in order by constant shifting. The contents of over 6000 shelves — that is, some 160,000 volumes — have had to be shifted in the course of the year, in order to find room for new accessions. The books already stand in double rows on 700 shelves, an increase of 250 shelves over the number so occupied last year. Under these conditions, it is natural to find that the labor of supplying books to the public has increased, that misplacements become more frequent, that the books themselves are less carefully handled, and that the expense of cleaning increases.

The usual summer examination of the shelves showed 118 volumes missing — 86 from the stack, 32 from the open collections in the reading-room and delivery-room. This is a particularly good showing with respect to the open collections, but a much larger number than is generally missing from the stack. No doubt the increase is in part due to the crowded condition of the stack. 24 volumes, reported missing in previous years, have been found or have been returned in the course of the past year. The net loss of books during the last twenty-three years is 1,141 volumes.

CATALOGUE DEPARTMENT.

Mr. Currier, in charge of the catalogue department, presents the following figures in regard to the work of this department.

The table shows a smaller number of titles catalogued, but it is satisfactory to notice an increase in the amount of permanent and complete work done, and a decline in the number of titles recorded

CATALOGUE WORK.	1901-02.	1902-03.	1903-04.	1904-05.	1905-06.
Titles catalogued for College Library:					
Full and complete work	9,226	8,517	8,842	7,401	7,860
Continuations, analytical entries, etc.	4,263	4,450	5,573	6,319	5,960
Incomplete work	2,936	3,373	6,301	10,442	6,295
Total	16,425	16,340	20,716	24,162	20,115
Titles for Dept. and Special Libraries	6,594	3,846	4,121	3,562	4,867
Total titles catalogued	23,019	20,186	24,837	27,724	24,982
Cards added to Catalogue:					
Printed cards —					
College Printing Office	16,555	18,135	11,827	6,026	7,243
Library of Congress	2,700	5,440	7,011	7,981	8,558
A. L. A. Publishing Board . . .	3,709	4,076	5,916	3,460	2,457
Total	22,964	27,651	24,754	17,467	18,258
Written cards	8,455	6,728	15,570	23,211	22,168
Total	31,419	34,379	40,324	40,678	40,426

incompletely. That the department has more than kept up with the work demanded of it is shown by the fact that there are now fewer unrecorded books on hand than a year ago. In November, 1905, the rough slips for uncatalogued books numbered 3,808. On October 24, 1906, the number had declined to 3,254. Of this number 1,939 represented books received since May 1, 1906, 656 bore the titles of books received from Professor Norton's library, none of which have yet been catalogued, and 659 were for other books received before the first of last May. Of this last number, only 424 were received previous to January 1, 1906. An examination of these 424 titles shows reasonable cause for delay in almost all cases. Some further improvement may be expected, but under present conditions it is impossible to treat all books with equal promptness. New books and books in immediate demand are properly taken up first, and others have to wait their turn. On the first of each month, special inquiry is made in regard to all books that have been on hand more than four months, so that they may be kept moving if possible.

Beside the ordinary current work of recording new accessions there has fallen into this year's work the cataloguing of Professor Bôcher's Montaigne collection and of the Scandinavian portion of Von Maurer's library. The incunabula of the Riant library and all other fifteenth century books lately received have been carefully catalogued and their cards will soon be filed. A beginning was made in cataloguing, for the public catalogue, other books of the Riant library, most of which still lack a record on that catalogue. The books of Professor Norton's library which he retains at his house have been noted on the official catalogue, so that we may avoid buying duplicates. Cards for the Von Maurer and Hohenzollern collections, prepared the previous year as the books were received, have been revised and inserted in the official catalogue. No complete and final record of the Hohenzollern collection, except on the shelf-lists, has yet been made. The shelf-list record is complete, and author entries are already, or soon will be, included in the official catalogue. The proof-reading of the Molière Catalogue added another item to the labors of the Catalogue Department.

In the summer, by employing temporary assistance, some advance was made in changing shelf-marks in groups lately reclassified — general works on Africa, books on tropical Africa and on the Dutch East Indies, and part of the collection on South America. The German History, reclassified more than a year ago, still waits, and in the meantime books are found, when called for under their old shelf-marks, by means of a slip catalogue, which gives the new mark corresponding to each of the old ones. Shelf-mark changing is work which can be done by careful persons without previous library experience, but it could be done more rapidly and more surely by a person regularly employed on it, and it would be good economy to employ someone continuously for this purpose.

Careful statistics of the number of titles catalogued and the number of cards inserted in the catalogue show a fairly constant ratio of a little more than three cards to each title.

A few recent experiments to determine the relative cost of cataloguing with ordinary written cards and with the printed cards furnished by the Library of Congress, indicate that, for simple books, the expense is very nearly the same — about 17 cents a title. That the advantage is not clearly on the side of the Library of Congress cards is due to the labor involved in (1) ascertaining whether cards can be had or no, (2) ordering the cards wanted, and (3) preparing the cards for the catalogue when received. This preparation includes the writing in of shelf-marks and subject-headings, trimming down to the size of our own cards, and punching for the insertion of the rod that holds the cards in place in the drawer. Libraries that use cards of the larger standard size are spared these latter processes. The more difficult or troublesome the book, or the greater the number of copies to be used for additional subject entries or for record in department libraries, the greater is the advantage in using the Library of Congress cards. Moreover, a printed card is in itself superior to a written card, and would be worth having, even if the difference in cost were distinctly in favor of the written work. Compared with cards printed specially for us at the College printing-office, the principal cost of which lies in the composition, the cards from Washington are, of course, very much cheaper.

ORDERING DEPARTMENT AND FINANCIAL CONDITION.

The following table shows the income of our book funds, receipts from other sources for the purchase of books, and expenditure for books during the last six years.

INCOME AND EXPENDITURE.	1900–01.	1901–02.	1902–03.	1903–04.	1904–05.	1905–06.
From book funds, —						
Balance from previous year .	$5,136	$4,534	$4,036	$3,208	$4,074	$4,781
Income of the year	19,306	19,972	19,446	19,992	19,560	19,063
Total available	24,442	24,506	23,482	23,200	23,634	23,844
Spent for books	19,908	20,470	20,274	19,126	18,853	19,324
Balance to next year	4,534	4,036	3,208	4,074	4,781	4,520
Special gifts, sales, etc. —						
Balance from previous year .	936	1,932	2,276	1,835	1,707	2,814
Received during the year . .	6,115	3,411	4,457	4,406	4,611	9,484
Total available	7,051	5,343	6,733	6,241	6,318	12,298
Spent for books	5,119	3,067	4,898	4,534	3,504	8,019
Balance to next year	1,932	2,276	1,835	1,707	2,814	4,279
Total spent for books, —						
College Library	$25,027	$23,537	$25,172	$23,660	$22,357	$27,343
Department Libraries (books ordered through Coll. Lib.)	4,484	7,245	7,389	6,214	5,623	9,357
Total	$29,511	$30,782	$32,561	$29,874	$27,980	$36,700

As stated in last year's report, $500 was withdrawn by the Corporation from the income of the Pierce fund hitherto spent for books, in order that a corresponding increase might be made in the expenditure for services. The figures in the second line of the table for 1904–05 and 1905–06 suggest that almost precisely this difference in the Library's income was the only result. But in fact the figures for

1905–06 include, for the first time, the full income of the Norton fund (used for adding to the Norton Library), so that the income actually available for appropriation by the Library Council — that is, for the ordinary increase in each department — was diminished by more than the amount of the $500. Counting out both the Norton and the Wales funds (the latter being confined to the benefit of Sanskrit studies, and therefore not subject to appropriation by the Council) the income last year was diminished by $1,182 — $500 by withdrawal from the Pierce fund, and $682 from a decline in the rate of interest. The appropriations having been made at the beginning of the year on the usual scale, it appears that the value of the books received during the year was about $1,100 in excess of the income. Fortunately, a larger balance than usual had been brought over from the previous year, but at the beginning of another year we are confronted with both a diminished income and a smaller balance than usual.* The annual appropriations will evidently have to be made on a reduced scale, unless some of the money which has been withdrawn from book income can be restored to it.

The unusually large sum of $8,937.38 was received during the year by gift, to be spent in specified directions. The largest gift was the $4,646.19 received from Professor A. C. Coolidge; the balance, $4,291.19, was received from twenty-four different persons. At the beginning of the year, an unspent balance of earlier gifts, amounting to $2,541.22, was carried over, so that we actually had in hand in the course of the year, with interest allowed by the Treasurer ($50.72), $11,529.32 to be spent outright for specific purposes. Owing to the temporary reduction in the personnel of the ordering department, our expenditure was intentionally restricted, and we carry over a balance of $3,711.02 to the next year. These gifts are, in almost every instance, devoted to purposes for which the ordinary income would not suffice. They cannot take the place of the ordinary appropriations made by the Council, but are intended to extend the Library's purchasing power.

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* The balance shown in the table is the balance on the Treasurer's books, and takes no account of an unusually large number of bills which could not be paid before the end of the year. The actual free balance against which new orders might be charged is $787.

The fact that balances of from three to five thousand dollars are carried forward each year on the Treasurer's books does not indicate that the Library has more money than it can spend, but simply that the difficulty of assigning each of the charges on every bill to one or another of about thirty-five different funds, the precise income on which is not known in advance, makes it necessary to allow a considerable margin in the balance carried forward. Large bills are often carried over from the end of one financial year to the beginning of the next, merely to avoid creating a deficit in the account of individual funds.

The work of the ordering department, in charge of Mr. Potter, is summed up in the following table, which gives the figures of the last three years and the averages of two previous five-year periods.

WORK OF ORDERING DEPARTMENT.	1890–95. Average.	1895–1900. Average.	1903–04.	1904–05.	1905–06.
New orders, —					
Total received and examined . . .	5,132	7,327	17,397	9,577	9,773
Already owned or ordered	1,193	1,725	6,930	3,428	2,468
Forwarded	3,800	5,036	11,041	5,984	7,038
Estimate of cost, —					
For the College Library	$9,079	$10,145	$16,995	$13,191	$12,642
For Departments	2,902	3,223	3,512	2,954	5,092
Total estimated cost	11,981	13,368	20,507	16,145	17,734
Shipments received from abroad . .	28	33	81	61	64
†No. of vols. bought for College Lib.	4,416	5,736	7,870	7,636	11,012
‡Total gifts examined and passed on	16,050	16,455	26,268	20,982	17,754

In comparing the figures of 1905–06 with those of previous years, it must be remembered that the additions to the Hohenzollern collection have affected these figures differently in different years. In 1903–04 and 1904–05, the Von Maurer and other Hohenzollern books were looked up and ordered in the Library, but, being paid for directly by the donor, counted as "books given" when received; they therefore increase the figures in lines 1, 3, 4, 6, and 9 of the table, but not the figures in line 8. In 1905–06, on the other hand, the additions to the Hohenzollern collection, as well as other books bought by Mr. Lichtenstein in Europe, did not enter into the work of the ordering department in Cambridge, but were nevertheless paid for through the College Treasurer. They therefore count as "books bought" and swell the record in line 8 in the table, but do not enter into the figures in the other lines.

Mr. Potter was absent on leave throughout the year, and I tried to lighten the work of his department by suggesting to professors that they should, so far as possible, concentrate their orders on a smaller number of more expensive works, instead of scattering them on a large number of the cheaper books. The table shows no great difference as a result of this proposal, but it should be noted that a very large number of orders for the Robbins Library in Emerson Hall passed through our hands, and that, with these deducted, the figures of lines 1 and 3 would show a substantial diminution.

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† Excluding volumes formed by binding periodicals and pamphlets, but including volumes received on exchange account from other libraries.

‡ Including both volumes and pamphlets. See p. 206.

Mr. Potter spent part of the winter in Algeria. A small appropriation from our funds was placed at his disposal, and he used it to excellent advantage in buying on the spot books and pamphlets relating to the country and its political relations. In fact, he found much more to buy than the money in his hands would pay for, with the result that many additional volumes were received by the Library as an anonymous gift. Mr. Potter also visited most of our European agents, and the Library will doubtless profit as a result of the better personal knowledge thus gained.

In the absence of the head of the department, Mr. Tillinghast kept a careful eye on the progress of the work, and Mr. Tufts carried a large part of Mr. Potter's daily routine, but the work suffered from having insufficient assistance, and the dispatch of orders was necessarily delayed, as was the prompt payment of bills. Mr. Potter justly complains of the insufficiency of his staff, and I regret not having been able to give him more help. He writes: "At least part of the time of an additional assistant is absolutely necessary for work upon the accounts. There have been long delays in the payment of bills. This is a matter which is not only inconvenient and unfair to our agents in delaying the payment, but is also a source of great inconvenience and some danger to the Library: for, with a large number of unpaid bills on hand, it is very difficult to assign funds to new books, and the liability to overdraft on certain funds is greatly increased. With only the present number on its staff, it is impossible to forward orders with even reasonable promptness, and at times during the year the orders necessarily fall behind many weeks."

The most interesting feature of the year's work was Mr. Lichtenstein's twelve months in Europe as our purchasing agent, and the practical completion of the Hohenzollern collection. Mr. Lichtenstein was also charged with collecting books on Northern Italy, to be paid for from the Skinner gift, and books on the Netherlands as the foundation of a John Lothrop Motley collection, for which a first instalment of $1,000, from an anonymous donor, had been received. Mr. Potter reports as follows: —

"For the Hohenzollern collection, Mr. Lichtenstein bought 3,801 volumes for $3,443; with the Skinner gift, 460 volumes for $404:

and for the Motley collection, 538 volumes for $655. The total cost of these 4,799 volumes was thus $4,502: to this may be added the cost of binding and freight, $1,838, the amount of Mr. Lichtenstein's salary and travelling expenses, $2,162, and Harrassowitz's commission of about $128: making a total of $8,622. This result is striking because the average per volume, $1.83, including all expenses and salary, is well below the general average that the Library pays for books purchased in the usual way. Of course it must be remembered that the Library every year buys a few very expensive works, that it subscribes to numerous societies and periodicals which are costly in proportion to the number of volumes procured, and also buys many new books at approximately the published price. Mr. Lichtenstein, on the other hand, bought nothing but second-hand books, and, with few exceptions, no very expensive works. In addition to this highly satisfactory financial result of the experiment, it is to be noticed that probably in no other way could we have procured so many books on this subject in so short a time, and that Mr. Lichtenstein had the further advantage of being able to examine and select the books themselves, instead of having to depend on bibliographies and catalogues. The Hohenzollern collection has thus been built up in a remarkably short time and at a surprisingly low cost, until it contains (including the shipment yet to come) about 8,000 volumes. The 2,000 volumes still needed to make up the promised 10,000 will consist mainly of continuations. This plan of sending a representative abroad to buy works in one or two special subjects was looked upon at the start as a rather doubtful experiment, but has proved to be a decided success. An incidental advantage comes from the knowledge of the German book trade gained by Mr. Lichtenstein, which will be of great use to the ordering department."

We are fortunate that Dr. Coolidge is willing, for the present and until his promised gift of 10,000 volumes is completed, to pay for the new volumes in the numerous sets lately acquired which are still in progress. It will soon be a serious question for the Library how these sets are to be continued when Dr. Coolidge's gift is completed.

Mr. Lichtenstein himself reports as follows: —

"Being on the spot I was often able to purchase large sets at much cheaper rates from dealers whose catalogues rarely reach us, or who often have no regular catalogues at all. Another advantage I enjoyed in that I had a choice of books to an extent one never has from catalogues; in no other way than by going to Germany itself could the Hohenzollern collection have been completed for years; and even when completed, many of the best sets now a part of the collection most likely would have been lacking. I purchased many books, the titles of which are too obscure to have been purchased from catalogues, and, on the other hand, I refrained from buying many volumes, the titles of which would have proved very attractive in a catalogue. I bought a part of the Pfister collection, which purchase was only made possible by my presence in Munich; and in this collection there are many treasures, which, I trust, will prove of great value to students of German History and Economics in the years to come.

"In all, I visited about 300 German bookdealers, purchasing books from fifty of them. As for the actual books obtained, the fact is worth mentioning that we have now nearly every German historical periodical, general as well as local, large as well as small. The same is true of the expensive sets of Urkundenbücher.

"The works on the history of Bavaria alone number 1,500 volumes, and include a special collection of material relating to King Louis II and his tragic end. Among the many interesting single volumes may be mentioned a manuscript economic survey of Bavaria, made at the end of the sixteenth century, not hitherto printed (the famous Sahl: Stüfft und Grundtpuech), and several volumes of manuscript records of the early Bavarian diets. The Nürnberg manuscripts include three volumes of Müllner's 'Relationes,' a history of Nürnberg families of the seventeenth century, and a history of the Nürnberg guilds, adorned with water-color illustrations of the implements used by the guilds.

"In the field of German history outside of Bavaria, I obtained a complete collection of the original dispatches issued by the Prussian and Bavarian governments during the Franco-Prussian War; a collection of 157 contemporary pamphlets bearing upon the questions discussed in the Frankfort Parliament of 1849; and a small collection of broadsides bearing on the Berlin Revolution of the 18th of March, 1848, including the famous proclamation of Frederick William IV, 'An meine lieben Berliner,' in which this Prussian king forgives his subjects the riots which they had caused."

STAFF.

The appointment of Mr. Lichtenstein as assistant in charge of European History on his return from Europe marks a new experiment in methods of administration. Heretofore, the work of the Library has been divided strictly according to processes, rather than by subjects. Orders for new books have been looked up and forwarded by one division of the staff; the books when received have been classified for the shelves by another division; and then have been turned over to a third group of workers to be catalogued. The workers in each group are skilled in the particular processes which belong to their division of the work, but none of them are specialists in any one subject of study, and the books which pass through their hands have to be examined anew by each worker. The new method, now under trial in a limited field, proceeds on different lines. A single person — an expert in his own subject — is responsible for all the processes, — the preliminary looking up of the title, the classification of the book when it is received, and finally its cataloguing. It may be difficult, under the new method, to secure the same degree of uniformity in the work done, but it is expected that a considerable economy in the time and labor put upon any given book will result. If the experiment is successful, it is to be hoped that the same method may be applied to other departments as fast as the Library's means permit.

WILLIAM COOLIDGE LANE,
Librarian.

THE GRAY HERBARIUM.

To the President of the University: —

Sir, — During the past academic year the acquisitions of the Gray Herbarium both by purchase and gift have been extensive and valuable; the collections made by members of the staff have yielded much material of scientific interest; and the output of the establishment in the way of technical publications has been, it is believed, fully as large as a staff so limited in number and so closely occupied in correspondence and curatorial duties would be warranted in attempting.

The more noteworthy sets of plants received during the year have been as follows: — By gift or in exchange: from the late Professor Franz Buchenau, 201 specimens from the Baenitz Herbarium, in continuation of former sendings noteworthy for the rarity and critical identification of the species included; from the New York Botanical Garden, 150 plants of the Bahamas, Cuba, the Isle of Pines, and Honduras; from Mr. J. G. Jack, 258 plants, chiefly from Japan, Korea, and China; from Capt. John Donnell Smith, 330 plants of Central America, in continuation of his well-known and invaluable *exsiccatae* of that region; from Mrs. J. M. Spencer, 100 admirably prepared specimens of southern European species; from Mr. C. F. Baker, 121 plants of Cuba; from the Royal Botanical Museum at Berlin, by special exchange, 73 portions of type specimens, chiefly of rare South American plants, also 104 miscellaneous duplicates; from the estate of Miss Frances Prince, through Miss Lucy Prince, 950 plants, chiefly ferns from New Zealand, Samoa, and the Fiji Islands; from Dr. J. W. Harshberger, 219 plants of the Pocono Plateau; from the Geological Survey Department of Canada, through Messrs. John Macoun and James M. Macoun, 1,314 plants of the Dominion of Canada; and from the Botanical Museum of the University of Copenhagen, 296 plants of northern Europe and Iceland. By purchase: from Mr. Leroy Abrams, 856 plants of southern California; from Mr. O. B. Metcalf, 459 plants of New Mexico; from Professor Aven Nelson, 555 plants of Wyoming; from Mr. T. S. Brandegee, 660 plants of Mexico, collected by Mr. Carl Purpus; from Mr. C. F. Baker, 532 plants of the Pacific coast of the United States; from Dr. Edward Palmer, 207 plants of northern Mexico, a collection especially rich in *Cactaceae;* from Mr. A. O. Garret, 306 plants of Utah; from Mr. B. F. Bush, 194 plants from Arkansas and Texas; from Professor E. Koehne of Berlin, 120 specimens of ligneous plants, accompanied by diagnostic figures, in continuation of his well-known *Deutsche Dendrologie;* from Mr. A. H. Curtiss, 239 plants of the West Indies; from Mr. A. A. Heller, 216 plants of California; from Mr. J. C. Blume, 71 plants of Pikes Peak and 222 plants of New Mexico; from Professor J. F. Collins of Brown University, 1,836 plants of Gaspé Peninsula, Quebec, collected by Messrs. Fernald and Collins, and including much duplicate material of high interest to be employed in foreign exchanges; from Mr. W. E. Broadway, 90 plants of the Island of Grenada. Collected by the staff: by Mr. Pringle, 227 plants of Mexico, including many new or rare species; by Messrs. Fernald and Bartlett, 581 plants of New England, material collected chiefly for exchange. (It may be noted that Professor Fernald's extensive collections secured last summer on Gaspé Peninsula were not received at the Herbarium until after the close of the academic year, and are therefore not included in the foregoing enumeration.)

The entire number of specimens received from all sources has been 13,492. The number of sheets of mounted specimens added to the organized portion of the Herbarium has been 12,933. In connection with these figures it should be stated that the present report in scope differs somewhat from those which have preceded. For many years the annual report of the Herbarium has been made to correspond to an academic year from September 1 to August 31. Owing, however, to the fact that the financial year of the University is now reckoned from August 1 to July 31, it seems best from this time forth to adopt the same period for the Herbarium reports, in order that the relation between expenditure and results accomplished may be as clear as possible. To change from the old system to the new, the present report has been drawn to cover a period of only eleven months, namely, from September 1, 1905, to July 31, 1906.

In the last report attention was called to the rapid advance in the price of many important botanical and horticultural works and to the desirability of acquiring desiderata as speedily as possible for the library of the Gray Herbarium. It is a pleasure to say that a generous patron, feeling the pressing nature of this matter, contributed one thousand dollars for the purchase of books. This sum is probably the largest which has ever been available at any one time for the library of the Herbarium, and it is safe to say that no gift of recent years has been more gratefully appreciated at the Herbarium or expended with more immediate advantage to the establishment. Notable among the works already acquired through this gift have been the following: Cassini's Dictionnaire des Sciences Naturelles (71 volumes), a complete set of Rees's Cyclopaedia (the English edition in 45 volumes), and a continuous series of the Revue Horticole from 1852 to 1904.

Besides the works obtained in the manner mentioned, the library of the Herbarium has acquired many works by purchase and some others by gift, among the latter the following being especially noteworthy: (1) As a transfer from the Botanic Garden, a set of Reichenbachia (4 volumes folio), an elaborately illustrated work on orchids. (2) From Col. T. W. Higginson, two note-books containing interesting memoranda made about 1840 chiefly regarding the wild plants then growing about Cambridge, many of which have since disappeared from the habitats cited. (3) From Mr. F. S. Collins, of Malden, the original manuscript from which the Flora of Middlesex County was compiled. This preliminary draft has importance, because it contains many notes relating to details of distribution, habitats, etc., which from lack of space could not be included in the printed work. (4) From Mr. Howard Payson Arnold, of Pasadena, Fée's valuable and beautifully illustrated Mémoire sur les Cryptogames vasculaires du Brésil. (5) In the course of the year 43 volumes, chiefly of the older and more technical botanical works, have been transferred from Gore Hall to the library of the Herbarium.

The number of volumes from all sources added to the Herbarium library during the year has been 608 and of pamphlets 509.

Mr. Pringle has completed another successful journey to Mexico. As the remoter parts of that country are gradually rendered accessible by new lines of rail, Mr. Pringle is able to establish new bases of operations and reach regions which have not been hitherto botanically explored. Thus, even after his twenty years of Mexican travels, there is no diminution in the extent and scientific interest of his collections and no indication that the field is being exhausted.

During the past summer Professor Fernald, assisted by Professor J. F. Collins of Brown University, has continued with marked success his explorations in the Shickshock Mountains, obtaining much data of particular interest in relation to the distribution of plants as controlled by the lithological character of the soil.

Miss M. A. Day has continued the editing of the Card Index of new Genera, Species, and Varieties of American Plants — an important work to which reference has been made in past reports.

With some clerical aid Miss Day has this year succeeded in issuing to each subscriber 9,063 cards and bringing the whole work more nearly to date than it has ever been before.

Mention has frequently been made of the pressing need of a better building for the Gray Herbarium. The present structure is only partially fireproof. It is ill lighted even in the day-time and is not equipped, except in a single room, with any form of artificial illumination. It is poorly ventilated and has inadequate plumbing of an archaic and wholly unsatisfactory type. There is no basement under much of the building, and in consequence some of the lower cases are occasionally so damp as to cause moulding of the specimens. The roof was so ill constructed that more than forty years of inspection and repairs involving considerable expense have never made it tight for more than a few weeks at a time. Each year brings greater congestion in the rooms, and every available space has now been used for cases and shelves. The crowding of the herbarium sheets has become so great as to endanger the fragile specimens and greatly impede the work of the staff.

As may be readily inferred, the building is not of a type which could be made satisfactory by repairs or additions; a wholly new structure is needed.

The age and dignified history of the Gray Herbarium, which is one of the oldest and most carefully developed scientific establishments of the University, seem eminently to justify the hope that speedy attention may be given to its pressing need of an ample fireproof building, where its invaluable collections can be safely preserved, and the staff as well as visiting specialists may carry on their work under favorable conditions.

As for some years past, it has been necessary to cover a portion of the expenses of the Herbarium by gifts for present use. Contributions to this end have been gratefully received from more than one hundred and fifty donors, whose gifts are specifically given in the Treasurer's Report. The Gray Herbarium is again greatly indebted to the members of its Visiting Committee, who have, as in past years, given much attention to its needs and liberally aided its work.

During the year the staff of the Herbarium has published twenty-six papers, of which the following from their scientific interest may be specially mentioned: —

Symphoricarpos racemosus and its varieties in eastern America. By M. L. FERNALD. *Rhodora*, VII, 164–167. 1905.

A new Ranunculus from northeastern America. By B. L. ROBINSON. *Rhodora*, VII, 219–222. 1905.

The generic concept in the classification of the flowering plants. By B. L. Robinson. *Science*, n. s., XXIII, 83–92. 1906.

Some American representatives of Arenaria verna. By M. L. Fernald. *Rhodora*, VIII, 31–34. 1906.

The genus Streptopus in eastern America. By M. L. Fernald. *Rhodora*, VIII, 69–71. 1906.

The salt-marsh Iva of New England. By H. H. Bartlett. *Rhodora*, VIII, 25–26. 1906.

Contributions from the Gray Herbarium, n. s., No. 32. Studies in the Eupatoriae. By B. L. Robinson. *Proc. Am. Acad.*, XLII, 1–48. 1906.

Some new or little known Cyperaceae. By M. L. Fernald. *Rhodora*, VIII, 126–130. 1906.

The identity of Eriophorum Chamissonis and E. russeolum. By M. L. Fernald. *Ottawa Naturalist*, XX, 62–65. 1906.

B. L. ROBINSON, *Curator*.

THE BOTANIC GARDEN.

To the President of the University: —

Sir, — As the Director of the Botanic Garden, I have the honor of presenting the following report for the academic year, 1905–06.

The following memoranda received from Mr. Robert Cameron, Head Gardener, are here submitted as matter of record: —

> "The autumn and winter were very mild, and few plants were lost or injured by the cold. During the summer there was plenty of rain, and, therefore, less water was used in the Garden than usual. On the whole, the entire year may be regarded as unusually favorable for all of our out-of-door plants. A serious pest must, however, be mentioned. Within the past few years, insects injurious to vegetation have increased in Cambridge rapidly and have given us a great deal of extra trouble and constant anxiety. But, by the use of poisons, we have accomplished a good deal. We employ about eight pounds of arsenate of lead to one hundred gallons of water. This kind of poison is efficient in destroying all three sorts of pests. One spraying during the season is sufficient for the gypsy moth, but the work must be done early, say, between the 10th and 20th of May. By this one thorough spraying and by applications of creosote to the groups of eggs in winter, the gypsy moth can be kept under.
>
> "We destroy brown-tail moths by removing the leaf-nests from the branches in winter, and burning them, and then spraying the trees when the foliage is just starting.
>
> "The elm-leaf beetle is a more recent and very annoying pest which is extremely destructive. It requires two or three sprayings with poison during the summer."

Our experience at the Botanic Garden, although limited, justifies the hope that by energetic measures taken early each spring, for a few years, and with faithful coöperation of neighbors in infested localities, these dangerous pests can be kept down, even if not wholly eradicated.

Improvements in details have been made in many of our plots and larger groups of plants, but no radical change has been undertaken in the arrangement. The special groups known as the Virgil and the Shakspere plots have been somewhat modified, and have attracted a large number of interested visitors. Several popular descriptions of these special plots have been published by visitors, and have led to a considerable correspondence. Since it is possible to arrange such groups in almost any large garden, the fashion is likely to increase a wholesome interest in plants which belong as much to literature as they do to Systematic Botany. There seems to be no good reason why this device in arrangement should not be somewhat further employed.

Our new plan for replenishing the stock of native plants is working well. It is well known that many of our northern plants are hardly distinguishable from each other when the first frosts have killed them down to the ground. Their accurate identification belongs therefore to the days when they are in full leaf and flower. If at that period they are plainly and securely labelled, their removal with their true names is an easy matter. But this method requires care and a great deal of patience on the part of the collector, who must make at least two journeys to each available clump of plants. Fortunately we have secured the cordial coöperation of two intelligent and industrious collectors who have already forwarded to us excellent specimens of large size, and we are encouraged to carry the work out on a larger scale.

Just fifty years ago, Professor Gray asked the people of Cambridge and Boston for funds to replace the shabby fence which then surrounded the Botanic Garden. At a large expense, a very substantial fence was built on three sides of the grounds. This fence, of course with innumerable repairs, gave good service until last spring, when it had become so weak in certain places that it was actually unsafe. After a thorough reconstruction had been decided on, it was found that a large amount of the old material could be employed in the new fence, and, further, that the line of the new fence on Linnaean Street ought to be moved outward about eighteen inches, in order to reach the true border of the Garden. The new fence has been placed exactly on the line determined by the Superintendent of Streets in Cambridge. For the choice of a color for the new fence, which has given satisfaction to everybody, we are indebted to Professor Herbert Langford Warren, of Garden Terrace.

Both of the dwelling houses at the Garden, and all of the greenhouses, are in fair condition, and have needed no expensive repairs during the year. Improvements have been made in the business office of the Head Gardener, by which additional security has been afforded to our large collections of seeds.

Last winter Mr. Cameron spent about three months in the West Indies collecting ornamental and economic plants for the Botanic Garden at Cambridge and the Harvard Experimental Station in Cuba. From New York he went directly to the island of Trinidad. While there he spent several days at the Botanical Garden and at the

Experimental Station at St. Clair and also visited some very large sugar and cocoa estates.

From Trinidad he went to the island of Grenada, visiting the Botanic Garden and several large nutmeg estates. Returning from Grenada to Trinidad, he took the steamer for Jamaica, on the way to Jamaica visiting La Guira, Port Colombia, Colon, and Panama. In Jamaica he examined all the principal gardens in the island, also sugar estates, banana plantations, and logwood groves. Leaving Jamaica he crossed over to Cuba and went direct to the Harvard Experimental Station at Soledad near Cienfuegos. He reports the plants and garden as looking extremely well. He also visited the Botanic Garden in Havana and the Experimental Station at Santiago de las Vegas. Mr. Cameron's expedition was entirely successful. The plants reaching our greenhouses came in good condition and have proved to be welcome additions to our stock. The plants which he despatched to Cuba went from Kingston, Jamaica, direct to Santiago, but between that port and Cienfuegos, their destination, they suffered from a needless delay on the part of the transportation agents in Cuba. Nevertheless, in spite of the risk incurred by such delay and consequent exposure to drought, they reached the Botanical Station in such a state as to warrant their being planted out. Almost all of them have done well.

The Harvard Botanical Station in Cuba has now been in successful operation for about six years. In December, 1899, the Director and Assistant Director of the Harvard Botanic Garden visited the estates of Mr. E. F. Atkins, near Cienfuegos, with the design of seeing whether any part of the grounds could be utilized for experiments in the improvement of the sugar-cane. A suitable tract of land with convenient houses was placed at the disposal of the proposed station, and arrangements were made by which careful experiments could be carried on. The partial success of these seemed to warrant further expenditure of time and money, and therefore, in the following year, Mr. Robert M. Grey, well known to horticulturists for his skill in plant-breeding, was sent to the station for an exhaustive preliminary survey. During the two next years, a good deal of work was done in securing varieties of sugar-cane from the most widely separated localities in the Old and New World, and in firmly establishing these as subjects for experiments in crossing. Mr. Pringle, Botanical Collector, obtained in Mexico a great number of interesting sorts, and carried these directly to the Station. In the meanwhile, a wide range of other tropical plants was procured from different sources, and these were placed under favorable conditions for cultivation and study.

In 1903, Mr. Grey took up his residence in the Station grounds, and since that time he has continued to live there as local superintendent, with his family. The Station, under Mr. Grey's care, has been inspected by many persons who are interested in the improvement of plants, and all visitors have expressed themselves well satisfied with the progress made. The Director, Assistant Director, and Head Gardener, at Harvard, have examined the work, and have kept in touch with it throughout. Monthly reports are received from Mr. Grey, covering the principal features of his studies and detailing his results.

The sugar-cane does not ordinarily produce good seeds. It has been cultivated for centuries from cuttings, and has lost almost entirely its power of reproduction by flowers. Hence, in the artificial production of seeds, it is necessary to convey, with certain precautions, the scanty pollen here and there found in a large field of cane to the pistillate flowers which are imperfect and very few. This painstaking method, which was first carried to success in the sugar-experiment stations in Java, has been proved to be very useful. By its means, new varieties have been produced, some of which have large sugar-content, and others are strongly resistant to disease. But in order to be very successful, these transfers must be made under favorable conditions. At our Station in Cuba, it has been found that the season has much to do with the measure of success. During the period of two years which closed in May, 1906, everything was propitious, and the results have been exceedingly gratifying. We have now several hundred new varieties of sugar-cane, many of which are highly promising, and all of which merit the careful investigation which they are receiving. Mr. Grey is to be congratulated upon the success which his experiments have met with.

In addition to the more important economic plants of the tropics now under observation at the Station, we are cultivating a great number of vegetables on the grounds, in order to ascertain whether the range of Cuban horticulture may not be considerably increased. Many interesting results have already been obtained, and much encouragement is given in this line of practical work.

Pleasant relations have been maintained with the Cuban Experiment Station near Havana, and with other stations in the West Indies. Owing to the fact that our Station, generously sustained by a private individual, Mr. Atkins, is absolutely free of governmental interference, we have not been obliged to suspend operations at any time, even during the recent period of disturbance at Cienfuegos.

It is pleasant to be able to state that Mr. Atkins expresses himself as perfectly satisfied with the results obtained at the Harvard Botanical Station, and that he plans, with the Harvard Botanic Garden directors, for its further systematic development. The results which are of special interest to the Cubans themselves are for the present published in the Official Bulletin of the Cuban Government. The most important of these communications is given both in Spanish and English, in the *Boletin oficial* for June 20, 1906.

Active work has continued in the Economic Museum, and considerable additions have been made. The most important is the beautiful collection of wood-sections prepared under the superintendence of Mr. Henry Brooks, comprising nearly all the woods of the United States. This fine collection which Mr. Brooks left on deposit in the Museum many years ago, and which has been one of our most useful works of reference, has now been given by him to the University, to be retained in Cambridge.

Our next most important accessions have come from the Philadelphia Commercial Museums, being fine representative sets of certain raw materials hitherto lacking on our shelves.

We have now completed the transfer of the Blaschka Glass models from the pasteboard on which they are shipped, to firm plaster plaques. The next shipment, to comprise the work of three years, is now due.

The "Containers" for the installation of Museum specimens have proved so useful that the work of constructing them as required for our exhibition rooms has gone steadily forward.

During his absence in Europe, Professor Robert Tracy Jackson visited Mr. James Lomax in England and secured from him one hundred and sixty-eight micro-sections of carboniferous fossil plants. These, with what Professor Jackson secured in 1899, give the Museum a very complete set of over two hundred of these choice sections. Professor Jackson selected and purchased of Dr. F. Krantz, in Bonn, eighty-two lots, ninety specimens, and of Mr. R. T. Damon, of Weymouth, fifty-seven lots, sixty-five specimens of fossil plants, to fill gaps in the collection. All the above material was purchased from the Elliot C. Lee fund.

It is a pleasant duty to express again sincere obligations to the Overseers' Committee on the Botanic Garden and Museum for efficient aid in carrying on the work at the Garden and Museum.

GEORGE LINCOLN GOODALE, *Director.*

THE ARNOLD ARBORETUM.

To the President of the University: —

Sir, — I have the honor to submit the following report on the progress and condition of the Arnold Arboretum during the year ending July 31, 1906.

A collection of shrubs planted systematically in parallel beds for convenient study by gardeners and other visitors has been one of the principal features of the Arboretum for many years. The arrangement of this collection has not, however, proved entirely satisfactory. An attempt to include in it plants not always hardy has increased the cost and difficulty of maintenance, and the presence of such plants in a collection maintained primarily for the benefit of students has often proved misleading. Many of the plants in this collection had become too crowded and therefore unable to show their true characters, and the approaches to the collection and the walks between the beds were inadequate. A plan for a new arrangement has therefore been made, as many of the plants as possible have been moved into temporary quarters, and from the others young plants have been raised. The area devoted to this collection has been slightly increased, and the whole ground has been thoroughly drained, graded, and prepared for planting in the spring of 1907.

The study of the American species of Crataegus has been continued during the year. Since January, 1900, 2,281 lots of the seeds of these plants have been sown at the Arboretum, and 450 groups of these seedlings, representing distinct forms, have now been permanently planted on the slope of Peter's Hill.

The interchange of plants and seeds with other horticultural and botanical establishments has been continued during the year. 12,542 plants (including grafts and cuttings) and 593 packets of seeds have been distributed as follows: To the United States, 9,751 plants and 62 packets of seeds; to Canada, 938 plants; to Jamaica, 3 packets of seeds; to Great Britain, 406 plants and 82 packets of seeds; to the continent of Europe, 1,317 plants and 287 packets of seeds; to Japan, 94 packets of seeds; to China, 3 packets of seeds; to Java, 4 packets of seeds; to Australia and New Zealand, 6 packets of seeds; to Chili, 130 plants and 44 packets of seeds; to Argentina, 3 packets of seeds; to the Philippine Islands, 5 packets of seeds. There have been received during the year 5,587 plants and 949 packets of seeds; of these plants 4,501 came from the United States, 207 from France, 460 from Germany, 68 from England, and 349 from Japan, Corea, and China.

During the year 6,971 sheets of dried plants have been added to the herbarium, representing principally plants from North America, Japan, Corea, China, Chili, and the West Indies.

The library has received by gift 2,545 bound volumes and 252 pamphlets.

During the second half of the year instruction has been given by Mr. Jack at the Arboretum to students of landscape-gardening from the Institute of Technology and to University students in forestry; and during the spring he conducted a field class in dendrology of forty special students, largely composed of teachers.

In December Mr. Jack returned to the Arboretum from the East, where he was successful in obtaining a large number of seeds and young plants in Japan, Corea, and northern China. These include several species not previously cultivated. From the valuable herbarium collected by him 650 sheets have been placed in the Arboretum.

In November, 1905, I went to Chili by way of the Isthmus of Panama, returning by the Straits of Magellan and Europe after an absence of five months. This journey was made to study the interesting forest flora of Chili, to obtain material for the herbarium, and to extend the relations of the Arboretum. Collections were made at Panama, Guayaquil, in the neighborhood of Lima, and in central and southern Chili.

Mr. Alfred Rehder has been engaged in Europe during the year on the work connected with the Bradley Bibliography; and Mr. Shaw has made another journey to Mexico to obtain material for the monograph of the genus Pinus on which he is engaged.

The following papers have been published during the year: —

Crataegus in Eastern Pennsylvania. By C. S. SARGENT, in *Proceedings of the Academy of Natural Sciences*, Philadelphia, 1905, pp. 577–661.

Species of Crataegus Found within Twenty Miles of Albany. By C. S. SARGENT and C. H. PECK, in *New York State Bulletin No. 105* (Report of the State Botanist for 1905), pp. 44-77.

I take this opportunity to again express my thanks to the Trustees of the Massachusetts Society for the Promotion of Agriculture for their annual grant of $2,500 for the maintenance of the Arboretum, and to the members of the Visiting Committee for their interest and assistance.

C. S. SARGENT, *Director*.

THE CHEMICAL LABORATORY.

To the President of the University: —

Sir, — Drs. Torrey and Baxter were advanced at the beginning of the year to the grade of assistant professor. During the first half-year the teaching staff of the Division was increased by the presence of Professor Wilhelm Ostwald (Geheim. Hofrath, Chem.D., M.D., D.Sc.), of the University of Leipzig. Professor Ostwald offered two courses: Chemistry 17, in English, on the fundamental conceptions of chemistry, and Chemistry 18, in German, on catalysis. The two courses taken together counted as a half-course toward the degrees of A.B., S.B., and A.M. Professor Jackson resumed his lectures in descriptive chemistry (Chemistry 1), the laboratory work in the course being under the charge of Dr. Latham Clarke (Sc.B., Rhode Island College, 1902; Ph.D., Harvard, 1905). The course in industrial chemistry (Chemistry 11), resumed by Professor Sanger, was conducted by him until December, and continued for the rest of the year by Professor William Hultz Walker, of the Massachusetts Institute of Technology (S.B., Penn. State Coll., 1890; Ph.D., Göttingen, 1892). Professor Torrey offered in the first half-year a new half-course, Chemistry 16, on the general reactions of organic chemistry. The half-courses in electro-chemistry (Chemistry 7 and 13) were given by Dr. Arthur Becket Lamb (A.B., Tufts, 1900; Ph.D., Harvard, 1904). The course in advanced physical chemistry (Chemistry 14) was again omitted, but Dr. George Shannon Forbes (A.B. 1902, A.M. 1904, Ph.D. 1905) gave a short course in chemical kinetics (Chemistry 14*a*) once a week during March and April, the course not counting for a degree. Dr. Arthur Staehler, assistant in the University of Berlin, on leave of absence, has spent the year in atomic weight investigation under the direction of Professor Richards.

The number of students* in the several laboratory courses during the year and in June, 1905, were as follows: —

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* This means the number of elections; many students taking more than one course.

	October, 1905.	January 1st, 1906.	June 1st, 1906.	June 1st, 1905.	
Chemistry 1	369	345	309	334	
Chemistry 3	120	114	100	117	
Chemistry 4	33	31	29	31	
Chemistry *5a* . . .	43	40	37	34	
Chemistry 6	28	27	25	17	
Chemistry 9	17	14	..	..	(27, Jan. 1, '05)
Chemistry 10	..	..	17	20	
Chemistry 12	10	8	..	..	(6, Jan. 1, '05)
Chemistry 13	..	..	5	4	
Chemistry 20*a* . . .	2	2	2	..	
Chemistry 20*b* . . .	2	2	2	4	
Chemistry 20*c* . . .	9	9	8	3	
Chemistry 20*d* . . .	7	6	6	7	
Chemistry 20*e* . . .	8	3	1	1	
Chemistry 20*f* . . .	5	5	5	4	
	648	606	546	576	(+33=609)

The number of students* in the courses in which no laboratory work is given were as follows: —

	October, 1905.	January 1st, 1906.	June 1st, 1906.	June 1st, 1905.	
Chemistry 2	104	95	..	..	(88, Jan. 1, '05)
Chemistry 5	44	44	39	42	
Chemistry 7	..	..	18	13	
Chemistry 8	..	..	78	63	
Chemistry 11	31	31	28	31	
Chemistry 14*a*	..	..	21	..	
Chemistry 15	..	..	20	34	
Chemistry 16	13	10	..	..	
Chemistry 17	21	17	..	..	
Chemistry 18	13	9	..	..	
Total number of students under instruction . .	874	812	745	759	(+88+33=880)

The number of students* completing laboratory courses in 1905–06 was 568, as against 608 in 1904–05, while the entire number, completing all courses, was 898 in the last year and 880 in the year before.

The alterations mentioned in the last report, which included the removal of the laboratory course in qualitative analysis, Chemistry 3, to Dane Hall, will give us enough actual working space for the elementary courses for some time to come, although the basement rooms in Dane and Boylston Halls are neither healthful nor properly lighted. The organic laboratory in Boylston Hall is over-crowded and the accommodations for advanced students are inadequate. It is increasingly difficult to find space for research students, and researches which demand isolation or separate rooms cannot be undertaken.

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* This means the number of elections; many students taking more than one course.

One of the courses in which the number of students is increasing is Chemistry 2, elementary organic chemistry, now required for entrance to the Medical School. It is most desirable that this course should include laboratory work, but this is at present out of the question on account of lack of space. For the same reason we cannot offer other courses which are greatly needed. There are now no general courses, open to the elementary student, in technical analysis, sanitary chemistry, inorganic preparations, biological chemistry, or in industrial processes. In other words, while the laboratory is equipped, however unsatisfactorily, for elementary chemical work, and will continue to turn out a certain amount of research even under unfavorable conditions, yet it is quite unable to give properly such general courses as would come under the head of applied science. Students in the School of Applied Science will have to receive individual instruction in the subjects which especially interest them, and much of this instruction must be given in unsatisfactory quarters.

During the year an important addition to the facilities of the laboratory was made by the installation of a plant for the manufacture of liquid air. This consists of a four-stage compressor built by the Norwalk Iron Works of Connecticut, which is driven by a twenty-horse-power Crocker-Wheeler electric motor, and a liquefier which was built at Wesleyan University from plans by Professor W. P. Bradley and under his direction. The plant is capable of producing at comparatively small cost about five liters of liquid air per hour.

We continue to receive gifts of books and journals from Professor Wolcott Gibbs. The book fund of the Class of 1881 has been increased to $3,500.

The following investigations were carried on in Boylston Hall during the year: —

Professor Jackson, with Dr. Latham Clarke, continued the study of the constitution of curcumine, the coloring matter of turmeric. With Mr. R. D. MacLaurin the study of the complex action of methyl alcohol and tetrachlorthoquinone was finished, and much progress made with the investigation of the action of other substances on this quinone. With Mr. W. V. Green the chlortriiodbenzol was made and studied.

The following investigations were conducted under the direction of Professor Richards: Dr. Arthur Staehler, assistant in the University of Berlin, determined the atomic weight of potassium by the analysis of potassic chloride. The research was modelled essentially upon that concerning sodium, recently undertaken in this laboratory, but several improvements were introduced. As a result, the atomic weight of potassium was found to be 39.114. Parallel with this research and supporting its conclusions, Mr. Edward Mueller also investigated the atomic weight of potassium by the analysis of potassic bromide. This salt was prepared from very pure potassic hydroxide, obtained through the decomposition of potassic oxalate, in some cases using electrolysis with a mercury cathode. The result for the atomic weight of potassium was also 39.114. Dr. G. S. Forbes converted silver into argentic nitrate with every conceivable precaution, and in this way showed that if silver is taken as 107.93, nitrogen can hardly be lower than 14.037. Mr. Grinnell Jones carried out a somewhat similar research, converting argentic sulphate into the chloride by ignition in hydrochloric acid. The results indicated that, with silver assumed as 107.93, sulphur must have an atomic weight as high as 32.113. Mr. J. H. Mathews conducted an elaborate and varied research on a comparison of the compressibilities, surface tensions, densities, vapor tensions and heats of vaporization of certain organic substances, with the idea of obtaining new light upon the nature of cohesion and its relation to chemical affinity. The interpretation of the results led to interesting conclusions. Mr. F. N. Brink continued the study of the compressibilities of various inorganic liquids and solids, spending much time upon the determination of the absolute compressibility of mercury. Mr. F. G. Jackson studied in great detail the specific heats of various metals and inorganic salts at low temperatures, using the new and highly satisfactory liquid air apparatus of the laboratory. These results are also interesting in their general relations. Dr. L. J. Henderson and Mr. H. L. Frevert began the study of the heats of combustion of a number of pure organic substances with the aid of the new adiabatic calorimeter. The results were interesting in several respects, and showed that the heat of combustion of benzol as ordinarily accepted is too low. Mr. Frevert also completed a careful study of the heats of formation and of solution of certain amalgams, which throws light upon their nature. Mr. B. S. Lacy finished the careful study of the temperature coefficients of certain reversible electrodes, defining with considerable probability the Thomson effect in electrolytes. Mr. R. W. Kent continued his study of the single potential differences of pure metals in solutions of their salts. Professor Richards received from the Carnegie Institution of Washington a fourth grant of $2,500, which greatly assisted the progress of several of the above investigations.

Professor Torrey studied with Mr. H. B. Kipper the action of phenylhydrazine upon certain aromatic oxyketones, with interesting results, since substances were obtained which, although they undoubtedly contained the hydroxyl group, are insoluble in aqueous alkalies. With Mr. J. E. Zanetti a study of ethyl promucyl acetate was undertaken, in continuation of the work of the late Professor Hill in the pyromucic acid series. With Mr. P. R. Manahan the velocity of the action of phenylhydrazine on quinone, as influenced by different solvents, was investigated. With Mr. C. M. Brewster the study of fluoresceins and eosins containing the methylketone group was taken up, and with Mr. P. Castleman the reactions of nitroresacetophenone. With Mr. A. L. Pouleur the catalytic effect of different metals on the oxidation of methyl alcohol to formaldehyde was investigated, and with Mr. F. P. Summers a study of vanillin and some related substances was made.

Professor Baxter determined the atomic weight of bromine, both by synthesis of argentic bromide from weighed amounts of silver and by the conversion of argentic bromide into argentic chloride. From this work, if the atomic weight of silver is 107.930, the atomic weight of bromine is 79.953. The following researches were carried on under Professor Baxter's direction: With Dr. M. A. Hines, the investigation upon the atomic weight of manganese, begun last year by the analysis of manganous bromide, was continued by the analysis of manganous chloride. The result for the atomic weight of manganese obtained from the analysis of the chloride is essentially identical with that previously found by analysis of the bromide, the final average from both series being 54.96, referred to silver as 107.930. An investigation upon the atomic weight of cadmium, begun by Dr. Hines and Mr. H. L. Frevert, was continued by Dr. Hines by the analysis of cadmic bromide and further analyses of the chloride. The results from the analyses of both salts agreed at the value 112.47, referred to silver as 107.930. Dr. Hines also began an investigation upon the atomic weight of chromium by analysis of argentic chromate. Mr. F. B. Coffin investigated the atomic weight of cobalt through the analysis of cobaltous chloride, and obtained as a final result the value 59.00, which is identical with that found in this laboratory some years ago. With Mr. G. S. Tilley, an attempt was begun to refer the atomic weight of iodine directly to that of oxygen through the analysis of iodine pentoxide. With Mr. R. C.

Griffin, the study of rare earths was continued, with special attention to the carrying down of ammonic oxalate by the insoluble oxalates of the rare earths. Mr. Griffin also investigated the adsorption of electrolytes by precipitates. Mr. A. C. Boylston determined the solubility of potassic permanganate between 0° and 65°. Mr. W. Chapin Holmes determined the vapor pressure of iodine between 0° and 55°. Professor Baxter has received from the Carnegie Institution of Washington a third grant, of $1,000.

Dr. Henderson, besides the investigation with Professor Richards and Mr. Frevert on heats of combustion of organic substances, as mentioned above, studied with Mr. F. N. Brink the compressibility of gelatine and of muscle. Dr. Henderson also carried on in this laboratory a part of his investigation on equilibrium in solutions of phosphates, the rest being done in the laboratory of biological chemistry of the Medical School, where other work was also done by him.

Dr. Clarke investigated new methods for preparing the octanes and entered upon an extensive study of these. A new octane, methyl dinormal propylmethane, was made, and the preparation of other octanes begun. With Mr. R. N. Shreve, Dr. Clarke devised a new method for making isohexane, and synthesized a new dodecane.

Professor Sanger, with Mr. O. F. Black, devised a new method for the determination of small amounts of fluorine.

The following papers were published during the year: —

1. Bromine addition compounds of Dimethylaniline. By C. LORING JACKSON and LATHAM CLARKE. *Am. Chem. Journ.*, XXXIV, 261.
2. On certain Derivatives of Tetrabromorthobenzoquinone. By C. LORING JACKSON and H. A. CARLTON. *Am. Chem. Journ.*, XXXIV, 422.
3. Addition compounds of Quinones and Tertiary Amines. By C. LORING JACKSON and LATHAM CLARKE. *Am. Chem. Journ.*, XXXIV, 441.
4. The action of Methyl Alcohol on Hexabromorthoquinopyrocatechin Ether. By C. LORING JACKSON and P. A. SCHAFFER. *Am. Chem. Journ.*, XXXIV, 460.
5. Ueber einige Derivate des Tetrachlorobenzochinons. Von C. LORING JACKSON und R. D. MACLAURIN. *Ber. d. deutsch. chem. Gesell.*, XXXVIII, 4103.
6. On Orthoparadibromorthophenylenediamine. By C. LORING JACKSON and F. W. RUSSE. *Am. Chem. Journ.*, XXXV, 148.
7. On certain Derivatives of Tetrabromorthobenzoquinone. By C. LORING JACKSON and F. W. RUSSE. *Am. Chem. Journ.*, XXXV, 154.
8. On the Action of Chloride of Iodine on Pyrocatechine. By C. LORING JACKSON and M. D. BOSWELL. *Am. Chem. Journ.*, XXXV, 518.
9. Additive Compounds of Arylamines with Aromatic Nitro Derivatives. By C. LORING JACKSON and LATHAM CLARKE. *Proc. Chem. Soc.*, XXII, 83.

10. Ueber die Formel des Curcumins. Von C. LORING JACKSON and LATHAM CLARKE. *Ber. d. deutsch. chem. Gesell.*, XXXIX, 2269.

11. The Transition Temperature of Sodic Bromide: a new fixed point in thermometry. By THEODORE W. RICHARDS and ROGER C. WELLS. *Proc. Am. Acad.*, XLI, 435 (Feb., 1906); also, *Zeitsch. phys. chem.*, LVI, 348 (1906).

12. A new Method of Standardizing Thermometers below 0° C. By THEODORE W. RICHARDS and FREDERICK G. JACKSON. *Proc. Am. Acad.*, XLI, 451 (Feb., 1906); also, *Zeitschr. phys. Chem.*, LVI, 362 (1906).

13. Note concerning the Use of the Nephelometer. By THEODORE W. RICHARDS. *Am. Chem. Journ.*, XXXV, 510 (June, 1906).

14. Investigations concerning Atomic Weights and other Physicochemical Constants. By THEODORE W. RICHARDS, in collaboration with R. C. WELLS, W. N. STULL, G. E. BEHR, Jr., G. S. FORBES, and R. F. JACKSON. (A preliminary report upon research concerning atomic weights, compressibilities, electromotive forces and thermochemical constants.) *Year-book Carnegie Institution of Washington*, IV, 155 (1906).

15. The Action of Ethylenedibromide on Paranitrosodialkylanilines. Second Paper. By HENRY A. TORREY. *Am. Chem. Journ.*, XXXIV, 475.

16. On the Addition Products of P-nitrosodimethylaniline with certain Phenols. By HENRY A. TORREY. *Am. Chem. Journ.*, XXXV, 246.

17. The Determination of Phosphoric Acid by means of Ammonic Phosphomolybdate. Second Paper. By G. P. BAXTER and R. C. GRIFFIN. *Am. Chem. Journ.*, XXXIV, 204.

18. The Atomic Weight of Manganese. By G. P. BAXTER and M. A. HINES. *Carnegie Institution Year-book*, IV, 149.

19. A Revision of the Atomic Weight of Cadmium. By G. P. BAXTER, M. A. HINES, and H. L. FREVERT. *Journ. Am. Chem. Soc.*, XXVIII, 770; *Zeitschr. anorgan. Chem.*, XLIX, 415.

20. A Revision of the Atomic Weight of Bromine. By G. P. BAXTER. *Proc. Am. Acad.*, XLII, 201; *Journ. Am. Chem. Soc.*, XXVIII, 1322; *Zeitschr. anorgan. Chem.*, L, 389.

21. Equilibrium in Solution of Phosphates. By LAWRENCE J. HENDERSON. *Am. Journ. Physiol.*, XV, 257.

22. Isohexane and a New Dodecane. By LATHAM CLARKE and R. NORRIS SHREVE. *Am. Chem. Journ.*, XXXV, 513.

CHARLES R. SANGER, *Director.*

THE JEFFERSON PHYSICAL LABORATORY.

To the President of the University: —

Sir, — The position of the new Law School building suggests the importance of keeping the side of the quadrangle between the Pierce building and the Jefferson Physical Laboratory in reserve for the future enlargement of this Laboratory.

The present building is rapidly approaching its limit of accommodation for elementary and advanced students; and provision should be made for desirable changes in mechanical equipment. The changes in mechanical equipment and in physical apparatus are more rapid and radical than in other branches of science, and are more expensive. For instance, the storage battery has entirely supplanted the voltaic cells, the Bunsen and Grove cells, which were, twenty years ago, an essential means for instruction in physics and also for investigations. A storage battery plant demands a dynamo, a system of wiring, and instruments of control. We see also in the subject of optics a radical change; the great spectroscopes with their trains of prisms, once the pride of philosophical cabinets, have been supplanted by entirely different instruments.

The average cost of each research in physics is not less than five hundred dollars, and some of the researches mentioned in the following list of publications of the officers and students of this Laboratory have cost over one thousand dollars.

The cost of elementary instruction is far less than the cost of research instruction; but the entire Division of Physics agree that research instruction is the life even of the elementary instruction; for students soon recognize an inherent difference between an instructor who has the spirit of research and one who has not. This spirit also leads to important improvements in apparatus and methods of instruction; the great changes in the equipment of modern laboratories have come from research, and it is only through research that one can educate competent professors of physics.

The members of the Division of Physics have enthusiastically supported and advanced the method of instruction by research; and the result of their work is shown in the yearly volumes of contributions from the Laboratory. The volume issued this year is the third of the series and the most important. The Director has received letters from prominent physicists in Europe acknowledging in warm terms their appreciation of the work shown by the publication. This work is now known in every important university and technical school in Europe and America.

The meeting of the Physical Colloquium is attended every week by a large body of Graduate Students, Instructors, and other students who are interested in the matters under discussion.

The Mechanician, Mr. Thompson, besides his work of actual construction of apparatus, performs an important function in research instruction; for he criticizes the crude ideas of Graduate Students; shows them how to realize their hope of advancing their subject by teaching them the proper use of tools and materials.

In short, the research method of instruction is now the prominent characteristic of the Division of Physics.

The following list comprises the papers published in 1905–06: —

1. On the Properties of Magnets made of Hardened Cast Iron. By B. O. PEIRCE. *Proc. Am. Acad.*, Vol. 40, No. 22.
2. Experiments on Resonance in Wireless Telegraph Circuits. By G. W. PIERCE. *Phys. Rev.*, Vol. 21, No. 6.
3. On the Manner of Growth of a Current in the Coil of a Nearly Closed Electromagnet as influenced by the Width of the Air Gap. By B. O. PEIRCE. *Proc. Am. Acad.*, Vol. 41, No. 24.
4. On the Thermo-electric Heterogeneity in Certain Alloys, especially German Silver. By EDWIN H. HALL, L. L. CAMPBELL, and S. B. SERVISS. *Proc. Am. Acad.*, Vol. 41, No. 25.
5. Studies in Fluorite: (*a*) Fluorescence of Fluorite; (*b*) The Thermoluminescence of Fluorite; (*c*) Gaseous and Liquid Inclusions in Fluorspar. By HARRY W. MORSE. *Proc. Am. Acad.*, Vol. 41, No. 28.
6. The Electrostatic Field surrounding Two Special Columnar Elements. By P. W. BRIDGMAN. *Proc. Am. Acad.*, Vol. 41, No. 28.
7. Electric Discharges: (*a*) Slow Moving Electrical Luminous Effects; (*b*) Magnetic Field and Electrical Discharges. By JOHN TROWBRIDGE. *Proc. Am. Acad.*, Vol. 41, No. 28.
8. Experiments on Resonance in Wireless Telegraph Circuits. Part 4. By G. W. PIERCE. *Phys. Rev.*, Vol. 22, No. 3.
9. The Spectrum of Hydrogen in the Region of Extremely Short Wave-Lengths. By THEODORE LYMAN. *Astrophys. Journ.*, Vol. 23, No. 3.
10. The Spectrum of Hydrogen in the Region of Extremely Short Wave-Lengths. By THEODORE LYMAN. *Memoir of the Am. Acad.*, Vol. 13, No. 3.
11. Dispersion in Electric Double Refraction. By H. L. BLACKWELL. *Proc. Am. Acad.*, Vol. 41, No. 30.
12. The Longitudinal Vibrations of a Rubbed String. By HARVEY N. DAVIS. *Proc. Am. Acad.*, Vol. 41, No. 32.
13. Architectural Acoustics: (*a*) Introduction; (*b*) The Accuracy of Musical Taste in regard to Architectural Acoustics; (*c*) Variation in Reverberation with Variation in Pitch. By WALLACE C. SABINE. *Proc. Am. Acad.*, Vol. 41, No. 32.

JOHN TROWBRIDGE, *Director*.

THE DIVISION OF ENGINEERING.

To the President of the University: —

Sir, — I respectfully submit the following report on the work of the Division of Engineering for the year 1905–06.

The courses of instruction have been substantially the same as those of the previous year, with certain small changes. Two new full courses, Engineering *5f* and Engineering *5g*, were introduced by Professor Johnson and Professor Hollis respectively. The first, dealing with problems in structures and materials, was intended for students in Civil Engineering; and the second, relating to problems involved in the design of steam engines and boilers, was planned specially for students in Mechanical Engineering. Both were intended to supplement the instruction in general design, and both seemed necessary in order to give a more thorough drill in the principles of design.

The half-course in heating and ventilation, Engineering 12*c*, was dropped in order to give students more time for other work. It should be restored, as an elective, as soon as the new School of Applied Science comes into full operation.

A half-course in machine design, Engineering 14*a*, was bracketed on account of Professor Kennedy's absence; and the full course in marine engines, Engineering 15*a*, was definitely taken from the list, having been bracketed the year before. At present, the teaching staff in Engineering is not large enough to permit the establishment of a full course in marine engines.

A research course, Engineering 20*a*, Alternating Current Machinery, by Professor Adams, was restored to the list; and a new research course, Engineering 20*d*, Reinforced Concrete, was established by Professor Johnson.

It is doubtful if the research courses in Engineering can be made to reach many students without material additions to the resources of the laboratories, including the equipment and endowment for running expenses. Few students have the money to spend on machinery and apparatus necessary to render experiment and research of great value; and so long as the University cannot afford outlay in this direction, very little can be accomplished in real graduate work. The senior students of the Scientific School, however, have done some good laboratory work in connection with theses and advanced courses. Only experience on their part is needed to render many of the results obtained by them of value to the profession of Engineering.

Heretofore, brief tables of statistics relating to the standing and numbers of Engineering students have accompanied the reports of divisional work. The rapid change of organization that has taken place in the establishment of the new School of Applied Science renders such statistics of doubtful value, and, with the exception of a short table given later, further data are omitted until the effect of the Graduate School upon the teaching of Engineering shall have been demonstrated.

The preparation of students for professional work under the present system of instruction seems to be in the main sufficient, as is proven by the readiness with which they find employment after graduation. The Engineering Division has always taken an interest in seeing that its graduates are well placed as soon as possible after Commencement; and up to this time no graduate has failed to obtain a situation to start with. During the last two years there have been many more places open than there have been men to fill them, and the Division is in constant receipt of requests for additional men graduated from the University, for employment in engineering positions. Many such applications have to go begging every year. That our graduates are usually acceptable to their employers, is shown by good reports of their work. On the Civil Service examinations for places connected with important public works they have been strikingly successful.

While Engineering has been steadily making its way in the University, and our graduates have become known to employers of engineers, the graduates of the Academic Department of Harvard of classes between 1870 and 1890 have a very inadequate knowledge of the relatively large place occupied by Engineering under the Faculty of Arts and Sciences. The body of instruction is substantial and well adapted to its purpose, viz., the education of young men to begin their novitiate, or apprenticeship, in practical engineering; and that is probably all that any Engineering school can be expected to do. That much is demanded of students of Engineering here is shown by a table comparing the percentage of graduates in the Academic Department and in Engineering during the past six years.

	1900–01.	1901–02.	1902–03.	1903–04.	1904–05.	1905–06.
Students registered in the College	1992	1983	2109	2073	2009	1899
Graduated	488	449	547	486	461	403
Percentage graduated . . .	25	22.6	25.9	23.5	22.9	21.2
Percentage of graduates taking degrees with distinction	30.9	32.5	30.9	35	27.5	29.8
Students registered as candidates for Engineering degrees . .	168	187	203	202	209	204
Graduated	27	18	20	27	30	29
Percentage graduated	16.1	9.6	9.8	13.4	14.3	14.2
Percentage of graduates taking degrees with distinction	48.1	66.7	60	66.7	30	41.4

It will be seen that the percentage of men successful in obtaining their degrees in Engineering is little greater than half that in the Academic Department; and that, furthermore, the degree with distinction is obtained by a much larger percentage of men graduating in Engineering than from the Academic Department. During the last three years shown in the table, the requirements for entrance to the Scientific School have been up to the level of the requirements for entrance to the College. Considering that the Department, though founded in 1847, really began instruction as a modern department only within the last fifteen years, and that graduates in considerable numbers date only a few years back, the progress has been satisfactory, and should be better known by the whole body of Harvard graduates.

It is hoped that the new Graduate School of Applied Science, by giving students one year more of training, may turn out men still better fitted for the profession of Engineering, and in that way give Harvard the same reputation in this subject that the University has already attained in Law and Medicine. The new School will be valuable to advanced students in three ways: first, a young graduate who has been in practical work some years may return to college to supplement his information on subjects wherein experience has proven him to be weak; second, a student who has completed four years of more general study may continue for one year the study of some highly specialized subject, for the purpose of making it his profession; third, a student who has completed four years of study in one line may devote a fifth year to strengthening himself along collateral lines, — as, for instance, a mechanical engineer may study the applications of electricity, or an electrical engineer may add to his knowledge of railroading. Many such related branches may be studied with great profit after the student has been emancipated from undergraduate work. It is doubtful, however, if the years in the

Graduate School can be used economically for broadening the education of engineers in the sense of pursuing the study of literature or history. This study should be confined to the undergraduate period, so that no time may be lost by a student who has after graduation from an undergraduate department definitely adopted a profession.

It is due to Professor Hughes that the Engineering Camp at Squam Lake has succeeded so well. While the friends of the University have given the land and buildings, so that we now have room on our own property for all the instruction in surveying and railroading, Professor Hughes has made the courses entirely self-supporting and effective. During the past summer there were 134 students, taking courses which amounted in all to 210½ full-course enrolments. Mr. Hughes has also been able to contribute materially to the content of summer residents about Squam Lake by his assistance and advice in repairing the dam at the outlet of the lake, thus preserving the water from waste.

Attention was called in last year's report to the teaching of elementary mechanics under Professors Johnson and Huntington. It has been so eminently satisfactory that the Division voted in the spring to extend the two-hour period to calculus and the first-year mathematics for Scientific School students. By this system there will be three two-hour periods per week for these subjects. It amounts really to one hour of conference after each lecture, during which time the students do their work in the presence of instructors. The close contact thus established between students and instructors has proven most stimulating, and will, it is hoped, become increasingly valuable.

During the senior year in Mechanical Engineering, the method of concentrating attention on one subject at a time was followed with great success. The work of the student was limited, for instance, during twelve weeks to the single subject of designing, and the quality of the work turned out as compared with that of other years has seemed to establish beyond doubt the value of this kind of instruction to older students of Engineering. The Tabular View interferes seriously with the extension of this method to many subjects.

The growth of engineering laboratories at Harvard has been gradual, and it has not kept pace with the laboratories of the larger universities either in the East or the West. A sufficient laboratory equipment is valuable in more ways than one, although the best machinery that can be obtained quickly falls behind the times unless constantly renewed. Many of the machines procured for the instruction of students become in a few years fit only for the museum, thus inevitably accumulating in any university a large amount of useless machinery. While there is room for much judgment in the selection of machinery that will yield the maximum amount of benefit to students and professors, nevertheless the above situation must be faced in the development of an engineering laboratory. If a machine has served to establish only one fundamental principle, it has justified the outlay for its purchase, and it may be laid aside without regret.

Professor Kennedy spent the entire year on leave of absence, the greater part of which was devoted to the study of commercial design of machinery at Lynn, in the shops of the General Electric Company. Professor Hollis was absent during the first term.

The following list of papers was published by the members of the Division during the year: —

An Analysis of General Flexure in a Straight Bar of Uniform Cross-Section. By L. J. JOHNSON. *Transactions of American Society of Civil Engineers*, Vol. LVI, 1906.

The Graduate School of Applied Science. By J. L. LOVE. *The Harvard Illustrated Magazine*, November, 1906.

The Distribution of Pressure and Current over Alternating-Current Circuits. By A. E. KENNELLY. *Harvard Engineering Journal*, Vol. IV, Nos. 3 and 4, November, 1905, and January, 1906; Vol. V, No. 1, April, 1906.

The Harmonic Analysis of the Semicircle and of the Ellipse. By A. E. KENNELLY. *Harvard Annals of Mathematics*, Vol. VII, January, 1906.

A Graphic Method of Determining the Ratio of Speed-Voltage Variation in Shunt Motors. By A. E. KENNELLY. *The Electrical World*, Vol. XLVII, June 23, 1906.

The Resistivity Temperature-Coefficient of Copper. By A. E. KENNELLY. *The Electrical World*, Vol. XLVII, June 30, 1906.

I. N. HOLLIS.

THE PSYCHOLOGICAL LABORATORY.

To the President of the University:—

Sir,—The last year represents a most important epoch in the development of the Harvard Psychological Laboratory, as its new home was opened in Emerson Hall. To be sure, the needs of the Laboratory were not the only and perhaps not even the most influential motive for the erection of Emerson Hall, yet perhaps in no department was the need for the new building so intensely felt. Experimental psychology was housed until Christmas, 1905, on the second floor of Dane Hall. There Professor James had opened the psychological workshop in 1891, and the two rooms with which he began formed to the end the chief part of the available room. It is true that a part of the old adjacent lecture room had been added in the meantime, and, as the demand for independent rooms increased, the space had been partitioned into smaller and smaller parts. Thus we had finally eleven rooms in Dane Hall, of which the best one was used for a library, and the only large one had to be the seminary room, workshop, and instrument room at the same time. Hardly any room was really adapted to its purpose. The research work was therefore crippled in every direction, and from year to year this was more and more felt on account of the steady increase of research students. The work in animal psychology lacked almost every modern convenience.

All this has been changed entirely since, on the first of January, 1906, the whole third floor of Emerson Hall was given over to the interests of experimental psychology. The psychological work is not confined to that floor: the introductory psychology lectures and the psychological seminary find their quarters on the first floor; the psychological library, which contains the chief literary resources of the Laboratory students, is coupled with the Robbins Library in the large reading room of the second floor. The large attic of the fourth floor is also given over to the interests of the Laboratory and used especially for storing the bulky pieces of apparatus. But the real working place of experimental psychologists is the third floor, with its twenty-seven rooms, whose mutual relation and whole equipment in every detail had been planned from the start with reference to the special needs of a psychological laboratory. The fullest effectiveness of the new research rooms would, of course, not have been reached had not the generosity of our benefactors supplied the Laboratory with ample funds for a perfectly adapted equipment of the rooms with carefully planned furniture, and, especially, with ample additions to the instrumentarium and to the collection of demonstration objects.

I have published a full history of the Emerson Hall movement and a description of the new building in the second volume of the Harvard Psychological Studies; I beg the permission to repeat from it in the following the most essential points as to the arrangement of the Laboratory.

Eighteen rooms of various sizes with outside windows form a circle around the central hall, which is well lighted by large skylights; but at each end of the hall itself two large windowless spaces are cut off and each of these is divided into three dark rooms. We have thus twenty-four rooms, besides coat-room, toilet-rooms, etc. A further stair leads to the wide attic, which is mainly a store-room for the institution.

In order that the Laboratory should be adaptable to the most diverse purposes, the permanent differentiation of the rooms has been kept in narrow limits. It seemed unwise to give from the first every room a special line of research, as the preponderance of special interests may frequently shift; there are years when perhaps studies in physiological and comparative psychology make the largest demand, and others in which studies in aesthetical and educational psychology stand in the foreground. A thorough-going specialization, by which special rooms are reserved for tactual studies and others for chronoscope work or for kymograph researches, allows of course certain conveniences in the fixed arrangement of instruments and a certain elaboration of equipment that is built in, but it very much impairs the flexibility of the whole laboratory, and has thus not seemed advisable for an institution whose catholic attitude welcomes investigations in every psychological field.

To be sure, certain constant requirements have demanded a special fitting up of one room as a workshop, one room for the more delicate instruments, one for the beginning course in experimental work, a lecture-room for the courses in comparative psychology, a photography room, a battery room, a sound-proof room, the chief animal rooms, and the dark rooms. We have seven light-proof rooms, finished in black, of which two have outside windows for heliostats; of the others, four can be used for optical research; the longest one contains the photometer. Six other rooms, including the lecture-room, may be darkened by opaque blinds. One contains a partition with a door and a grooved window-frame fitted with screens in which openings of any desired size and shape may be cut. This window is opposite the main door of the room, and opposite this, across the central hall, some sixty feet away, is the door of another dark room; optical stimuli can thus be given from this window to a subject over seventy feet away.

Several rooms are fitted up with special reference to the investigation of the various forms of organic movement, animal behavior and intelligence. As one result of several investigations in animal psychology already pursued here, the Laboratory has a considerable number of devices for testing and making statistical studies of the senses and intelligence, methods of learning and emotional reactions of animals.

Adequate provision is made for the keeping of animals in a large, well-lighted, and well-ventilated room. Instead of having aquaria built into the room, an aquarium-table eighteen feet long has been constructed to support movable aquaria of various sizes. Whenever it is desirable for the purpose of an investigation, any of these aquaria may be moved to the research room of the investigator or to such quarters as the special conditions of the experiment demand.

The vivarium-room contains, in addition to provisions for water-inhabiting animals, cages of a variety of forms and sizes. The largest of these cages, six and a half feet high, six feet wide, and four feet deep, may be used for birds, monkeys, or any of the medium sized mammals. Cages for rabbits, guinea-pigs, and other small animals are arranged in frames which support four double compartments. Similarly, small cages suitable for mice, rats, and other small rodents are in supporting frames which carry four of the double cages, each of which is removable and may be carried to the experimenting-room at the convenience of the experimenter.

In a large unheated room above the main Laboratory are tanks for amphibians and reptiles. These tanks, since they can be kept at a low temperature during the winter, are very convenient and useful for frogs, tortoises, and similar hibernating animals.

In view of the prime importance of electricity to a modern psychological laboratory, a rather elaborate system of wiring has been designed and built in. The unit of this system is a small delivery-board, six inches wide by eight inches high, which carries the following five circuits: *a*, a time-circuit for running magnetic signals; *bb*, two low-tension circuits for chronoscope, bells, signals, etc.; *c*, a high-tension alternating current (110 v. and 60 phases) for alternating current motors, to be used where great constancy of speed is desired; *d*, a high-tension direct current (110 v.) for direct current motors, where it is desired to vary the speed continuously (by the introduction of resistance). Two such delivery-boards have been set on opposite walls of all except the smallest rooms, which have but one board. Circuits *a* and *b* are represented on the board by binding-posts, while the high-tension currents, *c* and *d*, appear as flush, protected sockets that take a double-pole plug.

The instrument-room is equipped with large dust-proof cases for holding the more delicate and valuable instruments. The larger unused pieces are stored, out of sight but readily accessible, in an attic which has a clear floor-space of something more than half the total area of the Laboratory. Dust-proof cases for demonstration and class-work material are provided in the lecture and class-rooms.

The shop contains a wood-working bench with two vices, tool-racks, shelves, drawers, cupboards, and stock-racks, for the use of students; and a 9-inch lathe, circular saw, grinding and buffing-machine, separate bench, vice, racks, and drawers for the use of the mechanic. The machinery is run by a 5 h. p. electric motor suspended from one of the outside brick walls, on brackets. One who selects the equipment of such a shop has to weigh carefully the respective merits of circular and band saws; the latter undoubtedly lends itself to a greater variety of uses, but it is also a far more dangerous machine to have running in a room to which students are to be given access. This latter consideration determined in the present case the choice of a circular saw.

The Laboratory contains one room which is virtually sound-proof. A double door separates it from the adjoining experimenter's room, and double doors also separate this from the main hall. The wall between these two rooms consists of two layers of plaster with special deadening material inserted between. Two small tubes, ordinarily stuffed with felt, connect these rooms. When the acoustical stimulus is a tuning-fork, it is placed in a distant room, connected with one of the *b* circuits of the sound-proof room, and then with a telephone receiver near the subject's ear.

The photographic-room contains the ordinary sink, red lights, shelves, etc. The indirect entrance is light-tight when the door is not closed, so that the experimenter may pass in and out even when developing is going on. This room, like all the others which have no window (except the sound-proof room), has forced ventilation.

The class-room is designed for the experimental training-courses. It has eight of the regular delivery-boards, ten tables, instrument-case, blackboard, and sink.

The lecture-room for specialized courses in comparative and experimental psychology seats eighty students. It is provided with two Bausch and Lomb electric projection-lanterns, horizontal and vertical microscope attachments, and attachment for the projection of opaque objects. On the lecturer's platform, besides the blackboard, projection-screen, and chart-racks (capable of holding twenty charts), is a large demonstration table provided with a delivery-board, water, gas, sixteen chart-drawers, two other drawers, and three cupboards.

As has been said before, the general psychology course of the University is not given on the laboratory floor, but downstairs in the large lecture-hall with about 400 seats. A number of large demonstration instruments of the Laboratory serve the special purpose of this course; this hall too has its own stereopticons.

The work during the second half-year has fully proved the complete success of the new Laboratory and its equipment. The transition was an easy one in every respect and, after a few weeks, everything was in smooth running order. The fact that every investigation could be housed in a special room, and that a mechanic in the excellent workshop was able to give technical assistance at any time, aided the work immensely and promises for the future a greatly increased effectiveness for the research work of the advanced students in human and animal psychology. In a similar way the psychological lecture courses have received a new stimulus through the splendid technical equipment, especially through the excellent arrangements for stereopticon work with microscopic and reflectoscopic attachments.

When we closed our first year in the new home, the Laboratory published the second volume of the Harvard Psychological Studies, a volume of 644 pages, with many plates, charts, and diagrams. Of course, it does not contain any work from the new Laboratory, inasmuch as the manuscript for the volume had to be completed at about the time we moved from the old quarters to the new. It presents, therefore, merely the work done in Dane Hall and thus brings the first period of the Laboratory to its literary end. The character of the volume corresponds entirely to that of the first volume, but, encouraged through the prospect of the new Laboratory, we have risked going over to a form of publication which represents a greater independence than that of the first volume, which appeared two years before. At that time the Harvard Psychological Studies were merely a supplement volume of the Psychological Review, included in the series of supplement monographs published by MacMillans. That form of publication had the advantage that it profited from the subscription list of the Psychological Review. Yet it became evident that it was not to the advantage of the Harvard Laboratory to have that first volume of 650 pages simply included in a list of, on the whole, short monographs. The Laboratory has thus completely separated its publication from the Psychological Review and has published a second volume as an independent University undertaking with Houghton, Mifflin and Company.

The new volume, edited by the Director of the Psychological Laboratory, contains twenty-three experimental investigations. Several of them are direct continuations of researches published in the first volume, in accordance with the continuity which has run through all the Laboratory work for years. The largest number is grouped under the heading, "Association, Apperception, Attention." There belong the investigations of L. A. Turley on Inhibition and Reënforcement; of F. H. Rousmaniere on Certainty and Attention; of H. Kleinknecht on The Interference of Optical Stimuli; of T. H. Haines on Subjective and Objective Simultaneity; of C. H. Burnett on The Estimation of Number; of B. T. Baldwin on Associations under the Influence of Different Ideas; of C. H. Toll on Dissociation; of R. M. Yerkes and F. M. Urban on Time-Estimation.

On the psychology of feeling, the volume contains the investigations of F. M. Urban on The Expression of Feelings; of J. A. H. Keith on The Mutual Influence of Feelings; of C. H. Johnston on The Combination of Feelings; of E. H. Rowland on The Aesthetics of Repeated Space Forms; of L. E. Emerson on The Feeling Value of Unmusical Tone-Intervals. The field of sense psychology is represented by the researches of E. B. Holt on Eye-Movements during Dizziness and on Vision during Dizziness; of F. P. Boswell on Visual Irradiation; and of G. V. Hamilton on Stereoscopic Vision and the Difference of Retinal Images. There are further the papers of B. A. Lenfest on The Accuracy of Linear Movements; and of C. L. Vaughan on The Motor Power of Complexity. From the field of animal psychology, finally, the volume contains the investigations of R. M. Yerkes on The Mutual Relations of Stimuli in the Frog; of J. E. Rouse on The Mental Life of the Domestic Pigeon; and of J. C. Bell on The Reaction of the Crayfish.

Of these papers those of Boswell, Johnston, Haines, Burnett, Vaughan, and Bell were Doctor dissertations in Harvard; that of Miss Rowland, in Radcliffe; that of Lenfest, in Yale University (all the work of this investigation was performed in the Harvard Laboratory, and the Director of the Harvard Laboratory was invited by the Yale Faculty to serve on the committee for the Yale Doctor's Degree). The papers of Emerson and Rouse have been accepted as Doctor dissertations by the Department of Philosophy. The paper of Miss Rousmaniere secured for her the Wilby Prize in Radcliffe College.

The investigations with which the work of the new Laboratory has started proceed along exactly the same lines as those which are indicated by the titles in this volume. As in previous years, Professor Holt has special control of the work in human psychology, and Dr. Yerkes of the investigations in animal psychology.

HUGO MÜNSTERBERG, *Director.*

THE OBSERVATORY.

To the President of the University: —

Sir, — The last year has been one of disappointment, financially. It has always been my belief that while it was easy to expend large sums of money on Astronomy, it was a matter of great difficulty to do so in such a way as to secure a great return for a moderate outlay, and that, if this condition was attained, the friends of the Observatory would see that its needs were supplied. The management of the last thirty years has brought the Observatory into the condition in which, by the expenditure of a reasonable sum, a very large scientific output could be secured. This is illustrated by the Anonymous Gift of $20,000, made in 1902. It furnished reflecting telescopes of 24 and 60 inches aperture, and added to the building holding our photographs a fireproof wing of brick, three stories high, capable of storing 200,000 glass plates. Equally striking results in current work were obtained in 1903 with a small appropriation from the Carnegie Institution. Accordingly, the Visiting Committee of the Observatory attempted to raise the sum of fifty thousand dollars, which would have provided a fireproof building for the library, published a large amount of the material now ready for printing, and enabled a suitable study of the collection of astronomical photographs to be carried on for several years. Unfortunately, this attempt failed, the subscriptions being made on condition that the whole was secured, and amounting to less than one-third of the entire sum.

Observatory Instruments.

East Equatorial. — The observations with this instrument have been made by Professor O. C. Wendell, and have been of the same general character as in previous years. Fourteen thousand photometric comparisons have been made, principally with the polarizing photometer with achromatic prisms. About one-half of these measurements relate to stars of the Algol type, and serve to determine their light curves and times of minima. Measurements for determining the correction to the period have also been made, when the light was varying most rapidly. Many stars of doubtful variability have been observed, since the accuracy of the measurements permits even slight changes to be detected with certainty. Observations of the asteroid

Iris (7) have been continued, 544 measurements having been made. The observations show that the change in light in this asteroid had become nearly insensible in July, 1906. 2800 observations of 32 stars having spectra of the fourth type have been made, to determine the amount and nature of their variation in light, if any.

With a second photometer, adapted to the measurement of adjacent stars, observations of several objects of a miscellaneous character have been made. Twenty-nine eclipses of Jupiter's satellites have been observed photometrically, making 814 in all.

Meridian Circle. — The determination of the final constants for the reduction of nearly all the zones observed between — 9° 50′ and — 14° 10′ has been completed. The construction of tables for the conversion of the provisional places of the zone stars into final places has been begun, and these final places have been obtained for about one-fourth of the zones. The manuscript of a volume of the Annals which will contain the observations of the fundamental stars is nearly complete, and it is expected that this work will soon be given to the printer.

Miss S. C. Bond has continued the reduction of the observations made by the late Professor Rogers during the years 1879 to 1883. The work of obtaining the preliminary data is finished, and the determination of clock rate has been begun.

12-inch Meridian Photometer. — With this instrument 65,488 settings have been made by the Director, on 141 nights. In all, 576,764 settings have been made in eight years with this instrument, and the work for which it was constructed may be regarded as substantially completed. A standard scale of photometric magnitudes, for all stars brighter than the tenth magnitude, was furnished by the 4-inch Meridian Photometer. As the results of more than a million measures, extending over twenty-five years, many thousand stars distributed over the whole sky have been measured. Standards of magnitudes on a uniform scale have thus been furnished for the brighter stars. This work has been extended to the stars from the tenth to the thirteenth magnitude, by the 12-inch photometer. So many stars have been measured, from the North Pole to declination — 25°, that a continuance of this work does not seem desirable. It has proved an accurate, rapid, and convenient instrument, and although its work is differential, its results are reduced to the absolute standard scale by frequent measurements of stars already observed with the smaller instrument. The work might be continued to the South Pole, by sending this photometer to Arequipa, but measures of faint stars with a photometer attached to the 13-inch Boyden

Telescope partially supply this want. Had the mounting of the 60-inch Common Telescope been completed, measures of the faintest stars visible would already have been undertaken. It is expected that this will be done during the coming year. In view of the improved method of determining the magnitudes of very faint stars photographically, it may be a question whether it will be worth while to undertake an extensive series of measures of them visually, especially as it is probable that much of the time of the 60-inch will be occupied with other visual work.

HENRY DRAPER MEMORIAL.

The number of photographs taken with the 11-inch Draper Telescope was 648, making 16,679 in all; with the 8-inch Draper Telescope, 848, making the total number 34,275. The entire number of photographs of the stars taken at Cambridge during the year is 4,580. Fourteen eclipses of Jupiter's satellites and six occultations have been successfully photographed with the 11-inch Draper Telescope. Three of the occultations were obtained with the apparatus having a revolving plate. 691 stellar spectra on 588 plates have been studied in detail and classified by Miss Cannon. They supplement the work contained in Volume XXVIII, extending it to still fainter stars. In this research, three stars, H.P. 934, H.P. 3030 and + 44° 3639, have been found to show the second series of hydrogen lines.

Mainly from the study of the photographs taken with the 8-inch Draper, 8-inch Bache, and 24-inch Bruce Telescopes, Mrs. Fleming has found 17 new variable stars, 4 stars of the fourth type, 3 of the fifth type, 7 in which the hydrogen line $H\beta$ is bright, 3 gaseous nebulae, and 3 in which the spectra are peculiar. One of the latter, A.G.C. 23073, has a spectrum like that of ζ Puppis. One of the variables is of the Algol type. Two of them have periods of about half a day, and were found from an examination of the plates having successive exposures of 30 minutes throughout the entire night. The spectrum of a peculiar moving object in $\text{R.A.} = 9^h\ 38^m.1$, $\text{Dec.} = -79°\ 58'$ (1875), appears on a Bruce plate taken on January 30, 1906. The hydrogen lines have been found to be bright in 12 known variable stars, V Andromedae, RR Andromedae, S Lyncis, S Ursae Minoris, U Draconis, TU Cygni, Z Cygni, R Equulei, RR Aquarii, T Pegasi, RS Pegasi, and Z Cassiopeiae. The spectrum of SV Cygni is of the fourth type. An examination of two excellent spectrum plates of the Large Magellanic Cloud, taken with the Bruce Telescope, led to the discovery of a number of additional objects having bright lines in their spectra. These have not yet been identified and are not included in the above list. Seven meteor trails were found on chart plates. One new variable was found by Miss S. E. Breslin. An examination of the charts of Hagen's Series IV, and a comparison with photographs, has been made by Mrs. Fleming, to confirm the identification of the variables and to check the configurations of the comparison stars given in his catalogues for that Series.

BOYDEN DEPARTMENT.

The Arequipa station has remained in charge of Mr. R. H. Frost, the senior assistant there. The number of photographs taken during the year with the 13-inch Boyden Telescope is 325, making 11,418 in all; with the 8-inch Bache Telescope 227, making 37,263. The total number of stellar photographs taken during the year is 2,343. The Bache Telescope, having been in nearly constant use for twenty years, required important repairs. It was accordingly sent to Cambridge in November, 1905, where the lens was recentered and various changes made in the mounting. The most important of these were a new driving screw and gear, as both of them showed signs of eccentricity. It will probably be returned to Arequipa next winter, but its absence explains the great diminution in the number of photographs taken. The principal work of the 13-inch Telescope, like that of the 11-inch Telescope, has been photographing the spectra of stars of about the fifth magnitude, and thus extending the work of Volume XXVIII to the fainter stars. Several important changes have also been made in this instrument, including a new tailpiece, and a mounting for the prisms.

The amount of visual work this year has been larger than usual. 362 observations of 50 southern variables of long period have been made, by Argelander's method, mainly by Mr. P. P. Hill. 4,640 photometric settings have been made with the meridian photometer, 5,372 with the wedge photometer, and 2,080 with the photometer for measuring double stars. Total 12,092. The principal work has been the completion of the measures of the comparison stars of the 50 southern variables, and the continuation of the observations of the sequences of Durchmusterung stars in the zones — 39°, — 49°, — 59°, etc.

Meteorological observations, three times a day, have been continued as in former years, and visual observations of the cloudiness have been made hourly throughout the year.

BRUCE PHOTOGRAPHIC TELESCOPE.

The number of photographs taken with the Bruce Photographic Telescope is 638, of which 139 are spectrum plates and 146 charts having exposures of one hour, or more. The total number of photographs so far taken with this instrument is 8,142. The Bruce Telescope is now proving to be the most valuable instrument belonging to the Observatory, and the demand upon its time is proportionally great. With it we can photograph the spectra of fainter stars than with any other instrument we possess. Not only can charts showing very faint objects, like the ninth and tenth satellites of Saturn, be photographed with it, but its great field has developed tempting opportunities for the study of large regions, such as the Magellanic Clouds and the dark spaces in the Milky Way. In fact, in nearly every field, its advantages over the smaller instruments are becoming more obvious, and are rendering its constant use more important. These photographs are proving so useful here, that it is unfortunate that they should not be employed for similar work elsewhere. This has already been done to a certain extent mainly by the use of contact prints on glass. A further extension of such work is much to be desired. For many years, the offer has been made to furnish such copies at cost to any one who may desire them, and where good use can be made of them they are often sent without charge. The number of stars on such a plate with a long exposure often exceeds 300,000. The results that may be obtained from an examination of these photographs are well illustrated by the study of the Large Magellanic Cloud, now being made by Miss Leavitt. In it, she has discovered 816 variable stars, making the total number she has found, this year, 993, or 2,122 in all.

BLUE HILL METEOROLOGICAL OBSERVATORY.

The Observatory continues to be directed and supported by Mr. Rotch. The observations, which have been made during the past twenty-one years, under uniform conditions of exposure and environment, are being utilized by the Solar Commission in its investigations of the relations of meteorological observations with solar phenomena. The upper air was explored from two stations on this continent, and, in coöperation with M. Teisserenc de Bort, Director of the Trappes Observatory (France), also over the North and South Atlantic Oceans. On Blue Hill, monthly kite-flights were made, of which the mean altitude was 7,120 feet above sea-level, and the maximum height in any flight 11,860 feet, both being slightly greater than in the preceding year. The ascensions of *ballons-sondes* at St. Louis during the different seasons were completed by a series of twenty-one ascensions during the spring. All the *ballons*, with their instruments, were recovered, some of them having reached a height of about ten miles, and the existence of a relatively warm stratum, approximately seven miles above the earth, was demonstrated. The exploration of the upper air above the tropical Atlantic, which was begun in 1905 by M. Teisserenc de Bort and Mr. Rotch, was continued at their joint expense further west, and also south of the equator. By means of pilot-balloons and *ballons-sondes*, launched from the French yacht, the prevalence of the southwest or southeast anti-tradewind, at a height of two or three miles above the open ocean, was confirmed, and lower temperatures were shown to exist in summer, at great heights in the vicinity of the equator, than are found in winter at equal heights in the north temperate regions.

MISCELLANEOUS.

Variable Stars. — An attempt has been made to observe, at least once a month, the light of all the variable stars of long period whose magnitude is 9.0 or brighter, and which have a range of three magnitudes or more. The working list at Cambridge contains 309 stars. Mr. Campbell has made 1,178 observations of them with the 5-inch telescope and a field glass, and 560 with the 24-inch reflector. He has also observed those which are visible only during the latter part of the night. Miss Cannon has made 952 observations with the 6-inch West Equatorial. 718 observations have been communicated by Miss Ida Whiteside, 175 by Professor Whitney of Vassar College, 104 by Professor Stone of the University of Virginia, and 83 by Mr. Eadie. The total number, including those made at Arequipa of the fifty southern variables, is 4,132. The observations of the northern stars are generally reduced and plotted the next day, and the approximate magnitude on the first of each month is compiled by Mr. Campbell, and published in Popular Astronomy. These are by no means the final magnitudes to be deduced from the observations, but are intended merely to enable other observers to select objects suited to their instrumental means.

Needs of the Observatory. — As the needs of the Observatory have not been supplied they become more urgent each successive year. The value of the buildings is less than one-twentieth of the entire property of the Observatory, a proportion which is less than a quarter of that of other large institutions of its kind. Fireproof buildings of plain construction for the library, for the photographic laboratory, and for a workshop are greatly needed, and would form excellent memorials. Perhaps the greatest return could be obtained by the employment of more assistants for the study of the unique collection of astronomical photographs. This collection now contains 189,200 photographs of the stars, and is like a library of that size with only about twenty readers. The work of the Observatory is of value only so far as it is printed. Unpublished observations are absolutely valueless. The publication of the great amount of material that has accumulated in recent years must be regarded as one of the greatest needs of the Observatory.

No provision has yet been made by which aid can be rendered to a man of any other country, the "particular man," who displays unusual skill in a special department of Astronomy. The small fund available here for international research has proved exceptionally useful, and its increase is greatly to be desired. A man of real genius often has plans of the greatest importance, which he is obliged to abandon for want of a few hundred dollars. A very good example of coöperation to mutual advantage is a plan now being carried out by which the excellent astronomical work of the Rev. J. H. Metcalf has been materially increased.

Library. — The Library of the Observatory has been increased by 456 volumes, and, by binding, the number of pamphlets has been diminished by 741. The total numbers of volumes and pamphlets in the Library on October 1, 1906, are 11,878 and 23,770, respectively. This collection, one of the finest of its kind in the world, is in constant danger of destruction by fire, and is distributed through the rooms of the Observatory, wherever space is available. A suitable building to contain it is one of our most urgent needs.

Telegraphic Announcements. — Forty-one telegraphic announcements have been issued. Of these, eleven were received from Kiel, ten from Professor Herbert R. Morgan, nine from Lick Observatory, four from Professor E. O. Lovett, three from Professor A. O. Leuschner, two from the United States Naval Observatory, and one each from Professor Percival Lowell and Dr. W. R. Brooks. In addition to the announcements enumerated above, eight were cabled to Kiel which were not generally distributed by telegraph.

On March 15, 1906, the Science Observer Code, which had been in use over twenty years for the transmission of astronomical telegrams, was superseded by a new system devised by Mr. Gerrish. The principal advantage of the new code is that no code-book is required. Numbers are telegraphed by a syllabic code, in which each digit is represented by a combination of two letters, which thus furnishes a check for each. The system, which may be used to send safely any message consisting mainly of numbers, has had a thorough practical test since its introduction, and has proved entirely successful. Copies of a pamphlet describing it will be furnished gratuitously on application. Announcements will be received at this Observatory, by telegraph according to this system, for transmission to Kiel, and for distribution on the continent of America. Professor Kreutz, at Kiel, is prepared to receive announcements in the same system, from other countries than Europe.

Cablegrams intended for this Observatory should be addressed "Observatory, Boston"; and all telegrams, "Harvard College Observatory, Cambridge, Mass." All correspondence relating to telegrams should be addressed to the Director.

These telegrams continue to be supplemented by neostyle bulletins which are printed as soon as the telegrams have been sent off, and distributed by first-class mail. Translated messages together with additional information are thus promptly distributed. 56 bulletins, making 255 in all, have been distributed in this way.

Publications. — Volume **39**, Part **2**; Volume **53**, No. **10**; Volume **58**, No. **2**, have been completed and published this year. 24 pages of Volume **47**, A Photographic Study of Variable Stars; 161 pages of Volume **52**, Eclipses of Jupiter's Satellites; 20 pages of Volume **54**, Durchmusterung Zones observed with the 12-inch Meridian Photometer; 56 pages of Volume **55**, Variable Stars of Long Period; 16 pages of Volume **56**, No. **4**, Meteorology of Total Solar Eclipses; 50 pages of Volume **60**, No. **3**, Positions of Phoebe, 1898–1904, and 25 pages of Volume **61**, Researches of the Boyden Department, have been put in type. No progress has been made in printing Volume **49**, and the printing of Volumes **50**, **57**, **59**, **62** and following volumes has not yet been undertaken. Accordingly, the completed volumes are **1–46**, **48**, **51**, and **53**. Also Volumes **56**, Nos. **1**, **2**, and **3**, **58**, Parts **1** and **2**, and **60**, Nos. **1** and **2**.

Twelve circulars have been issued whose numbers, titles, and dates are as follows: —

107. Twenty-five New Variable Stars. January 12, 1906.
108. A Systematic Study of Faint Stars. February 7, 1906.
109. Observations of Phoebe during 1905. February 7, 1906.
110. Determination of Radial Motions by Objective Prisms. February 9, 1906.
111. Stars having Peculiar Spectra. 13 New Variable Stars. February 16, 1906.

112. Variable Stars of Long Period. February 21, 1906.
113. Measurements of Linné during Total Lunar Eclipse. March 14, 1906.
114. The Algol Variable, +41° 851. 041342. March 28, 1906.
115. Twenty-two New Variable Stars in Carina. May 4, 1906.
116. A Durchmusterung of Variable Stars. May 11, 1906.
117. *183930.* A New Algol Variable. −30° 16169. H 1236. May 20, 1906.
118. Observations of Phoebe in May and June, 1906. August 19, 1906.

Besides the more important publications which have been described above, numerous minor publications have been made by the officers of the Observatory.

EDWARD C. PICKERING, *Director.*

THE MUSEUM OF COMPARATIVE ZOÖLOGY.

To the President and Fellows of Harvard College: —

In the academic year 1905–06, ten courses in Zoölogy were given by Professors Mark, Parker, Castle, and Dr. Rand to two hundred and fifty-one students in Harvard University, and seven courses were given to thirty-three students of Radcliffe College. The assistants in the University courses were Messrs. A. M. Banta, L. J. Cole, E. D. Congdon, I. A. Field, H. MacCurdy, A. S. Pearse, and H. E. Walter; in Radcliffe College the assistants were Messrs. M. Copeland, J. A. Long, and H. MacCurdy. Mr. E. D. Congdon held the Virginia Barret Gibbs Scholarship, and five students connected with the Zoölogical Laboratory received aid from the income of the Humboldt Fund.

In the Department of Geology and Geography two courses were conducted by Professor Davis, the Sturgis-Hooper Professor of Geology; these courses were given as in former years, save that an additional amount of laboratory work was required in the course dealing with the physiography of the United States. The other courses were given by Professors Shaler, Ward, Woodworth, Jaggar, Johnson, and Drs. Smith and Mansfield; the assistants were Messrs. W. M. Barrows, H. N. Eaton, J. W. Eggleston, E. J. Saunders, F. H. Sawyer, S. A. Starratt, and E. E. White. These courses, nineteen in number, were taken by three hundred and eighty-seven students of Harvard University; four courses offered to students of Radcliffe College were taken by forty-three students. In the Summer School two courses were given by Dr. Mansfield and Mr. Eggleston to eighteen students. Mr. H. E. Merwin held the Josiah Dwight Whitney Scholarship for the year.

For an important improvement to the building the Museum is indebted to the continued liberality of Mr. Agassiz. To facilitate the entrance of the public to the Exhibition Rooms Mr. Agassiz erected in 1886–87 a three-story staircase; to this structure he has now added two stories. The Museum thus gains a more finished entrance and a large work-room; the latter will be devoted to the Research Collections of fossil Echinoderms. The Museum is also enabled by Mr. Agassiz's generosity to undertake the renovation of all the entrance and exhibition halls from cellar to roof, and to rebuild the large central case in the African Room.

For the Exhibition Rooms, new cases have been built in the Mesozoic Room and in the European Room; one case in the Indian Room has been enlarged. For the Research Collections additional cases have been provided for the Ornithological Department, the alcoholic reptiles, the Entomological Department, the lower invertebrates, and for the thalassographic collections.

From Mr. William Barbour of New York the Museum has received for present use five thousand dollars ($5000). Mr. Barbour's generous gift will provide for the more efficient storage of our Research Collections, and for some desirable specimens for both research and exhibition.

Already we have bought from Mr. Barbour's donation a fine egg of the Great Auk, *Plautus impennis*. This egg, number 65 of Grieve's List, was originally the property of the Royal College of Surgeons, London; later it was acquired by Mr. Robert Champley of Scarborough, England. The Museum bought it of Mr. Rowland Ward.

In connection with the egg of the Great Auk attention may be called to the following extract from the Sixth Annual Report of the Museum, 1864 (1865). Professor Louis Agassiz, Director of the Museum, wrote (p. 16–17): "Among the most valuable accessions to the Museum, during the past year, I would mention . . . a perfect specimen of a mummyfied pinguin (Alca impennis), presented by Sir Alexander Bannermann, late governor of Newfoundland."

This specimen, so far as I know unique to-day, was secured on Funk Island, off Newfoundland, in 1863.

Another most gratifying gift was received last June from the Rev. Henry W. Winkley of Branford, Conn.; it consists of a large series, some 1600 species and varieties of land shells from all parts of the world, except New England. His New England Collection Mr. Winkley retains for study, but he writes that he thinks in time it too "will find its way to the Museum." The shells received are in excellent condition. Mr. Winkley, as a member of the Class of 1881, recalls with pleasure his undergraduate work in the Museum, and gives the Collection as his contribution towards the twenty-fifth anniversary celebration of the Class.

It is hoped that Mr. Winkley's gift will prove an incentive to other graduates to associate their college work with the interests of science and the Museum.

For a number of years the late Mr. Roland Hayward was deeply interested in the Entomological Department of the Museum; he frequently enriched its collections and gave his time freely to their study. Mr. Hayward died April 11, 1906, and bequeathed the Museum his entire collection of Coleoptera, a collection especially rich in the Carabidae, with a large number of types and determined species of Bembidium, Tachys, and Amara.

The thanks of the Museum are due to Professor J. W. Judd for a carefully labelled series of Dolomitic rocks from the Tyrol; to Mr. John E. Thayer for an interesting collection of mammals from Sonora, Lower California, and contiguous regions; and to Professor Roland Thaxter for a large number of insects, principally Coleoptera, collected during his stay in South America.

The Museum is likewise indebted to Dr. Frank Springer for a fine series of the crinoid, *Talarocrinus patei*, from the St. Louis group, Breckenridge Co., Kentucky, and to Dr. Leon J. Cole for some interesting invertebrates from the Tortugas.

All departments of the Museum, but especially the Entomological and those under the charge of Mr. Garman, have received many and valuable accessions from the continued interest of Mr. Thomas Barbour.

By purchase the Museum has acquired 224 specimens of Ammonites, an invaluable addition to its already rich series of fossil Cephalopods. These important fossils are from the Inferior Oolite of England, many of them from the famous Bradford Abbas quarry, a locality no longer available. The collection has been monographed by Mr. S. S. Buckman in supplements to his Memoir on Inferior Oolite Ammonites of the British Islands (Palaeontographical Society, London); more than three-fourths of the specimens are types; the Museum thus shares Mr. Buckman's types with the Woodwardian Museum (Cambridge, England).

The Museum has also purchased of Mr. A. E. Wight a considerable collection of Jamaican invertebrates and lower vertebrates.

To Messrs. Faxon, Brewster, Woodworth, and Bangs the Museum is under obligations for the care they have taken of their several Departments. The special reports of the assistants give the usual details of the year's work.

For the Exhibition Collections Mr. Agassiz has given a magnificent Manchurian Tiger (*Felis mongolica*), a Bald-headed Chimpanzee (*Anthropopithecus tchego*), and three Hartebeests, Coke's, Swayne's, and the Cape (*Bubalis cokei*, *B. swaynei*, and *B. caama*).

The Museum will also receive as a gift from Mr. Agassiz a male Okapi. Though properly an accession of next year the exceptional interest attached to the Okapi, and the fact that this specimen is the first of the species to be shown in a museum in this country, seems sufficient reason for its mention here. Moreover, competent authorities consider this the finest example of the species hitherto mounted in England. It was mounted by Mr. Rowland Ward.

The Okapi is related to the Giraffe, having paired hoofs, large ears, and a fairly long neck; the legs and haunches are striped instead of being spotted; the male has a pair of single bony horns covered with skin; it is found in the forests of the Congo.

Stimulated by Mr. Agassiz's generous gifts a thorough rearrangement of the exhibition rooms devoted to the Europaeo-Siberian and to the African Faunas has been undertaken; for the European Room this rearrangement is practically completed, and for the African Room it is well under way. The new cases, built from base to ceiling, with large panes of glass and without the usual cross-bars, give a much improved appearance to the rooms, while the simple expedient of placing the brackets on the upright next the glass allows a far more effective display.

There are two Exhibition Rooms yet to be opened to the public: these are the room devoted to the Mesozoic Fauna and the one for animals under domestication.

It is expected that these rooms will be opened during the year 1906–07. The vertebrates for the Mesozoic Room are already in place, but the invertebrates are yet to be selected, mounted, and labelled.

By devoting a room to animals under domestication, the Museum realizes one of the plans of its founder. During his early work here, Professor Agassiz personally, and with the aid of his assistants, accumulated much valuable osteological material of domesticated animals; a selection from this material will be utilized for the new room.

Dr. C. B. Davenport, Mr. E. N. Fischer, Mr. F. P. Lothrop, and Mr. H. F. Otis have shown their interest in this exhibit by presenting a number of fowls and pigeons; these have been mounted by the Museum preparator, Mr. George Nelson.

For exhibition among the special collections Dr. W. E. Castle has presented a series of fourteen guinea-pigs; this series, which shows graphically the principle of alternative inheritance, has been most skilfully mounted by Mr. Nelson.

Mr. Nelson has continued his work on the reptiles for exhibition; two of the more noteworthy examples of his handiwork are the Python and the Cobra in the Indian Room.

There are 42,421 volumes and 36,322 pamphlets in the Library of the Museum, an increase of 1,264 volumes and 1,289 pamphlets over the numbers previously reported.

The publications for the year include a volume and two numbers of the Memoirs, seventeen numbers of the Bulletin, and the Annual Report, a total of 893 (731 octavo, 162 quarto) pages and 161 (51 octavo, 110 quarto) plates. Four of the numbers of the Bulletin and all of the Memoirs are reports on the scientific results of expeditions fostered by Mr. Agassiz; seven numbers of the Bulletin are based principally upon Museum collections, three numbers are Contributions from the Zoölogical Laboratory, and three numbers, issued in the Geological series, are similar Contributions from the Geological Department. The Corporation has continued an appropriation of $350 to assist in the publication of the Contributions from the Zoölogical and Geological Laboratories.

SAMUEL HENSHAW.

THE ZOÖLOGICAL LABORATORY.

To the President of the University: —

Sir, — The number of students attending the several courses in Zoölogy during the academic year 1905–06 is shown, as usual, in the following table, the numbers printed in italics referring to students registered in the Lawrence Scientific School: —

Courses 1905–06.	Grad.	Senior.	Junior.	Soph.	Fresh.	Special.	Total.
Zoölogy 1	3	6+*2*	15+*5*	31+*7*	32+*3*	8+*8*	95+*25*=120
" 2	1	2+*1*	10+*1*	10+*4*	3+*1*	1+*3*	27+*10*= 37
" 3	3	3+*1*	5+*4*	2+*3*	. . .	*2*	13+*10*= 23
" 4	2	1	2	*1*	. . .	. . .	5+ *1*= 6
" 6	3	. . .	2	*1*	. . .	. . .	5+ *1*= 6
" 11*a*	10	3+*1*	. . .	. . .	. . .	. . .	13+ *1*= 14
" 11*b*	9	2+*1*	. . .	. . .	. . .	. . .	11+ *1*= 12
" 13	6	2	. . .	. . .	. . .	. . .	8 = 8
" 15	7	2	. . .	. . .	. . .	. . .	9 = 9
" 20	14	1	. . .	*1*	. . .	. . .	15+ *1*= 16
Sums	58	22+*6*	34+*10*	43+*17*	35+*4*	9+*13*	201+*50*=251

The corresponding information about students of Radcliffe College attending courses in Zoölogy is given in the second table: —

Courses, 1905–06.	Grad.	Sen.	Jun.	Soph.	Fresh.	Special.	Total.
Zoölogy 1	2	3	3	2	3	3	16
" 2	1	. . .	. . .	2	. . .	. . .	3
" 3	1	. . .	1	. . .	. . .	1	3
" 4	1	1	. . .	1	. . .	1	4
" 6	1	1	. . .	1	. . .	. . .	3
" 15	1	. . .	1	. . .	. . .	. . .	2
" 20	2	. . .	. . .	. . .	. . .	. . .	2
Sums	9	5	5	6	3	5	33

Assistant Professor R. T. Jackson was on leave of absence during the year and the courses in Palaeozoölogy were not given.

It is especially gratifying to record the promotion of Assistant Professor Parker to be Professor of Zoölogy, and the promotion of Dr. Rand to a seat in the Faculty of Arts and Sciences.

Zoölogy 1 was conducted by Assistant Professor Parker essentially as in the year 1904–05. The chief assistant in Harvard University was Mr. L. J. Cole; the sub-assistants were Messrs. E. D. Congdon, A. S. Pearse, and H. MacCurdy. In Radcliffe College the assistant was Mr. J. A. Long.

Zoölogy 2 was given by Assistant Professor Castle, substantially as in previous years. Mr. I. A. Field was chief assistant, and Mr. A. M. Banta, sub-assistant, in the Harvard class. Mr. H. MacCurdy had charge of the laboratory work in Radcliffe College.

Dr. Rand was in charge of Zoölogy 3, and conducted the course in the same way as in the previous year, making satisfactory use of occasional "quizzes." The lighting of the laboratory was much improved. The assistant in Harvard College was Mr. H. E. Walter; in Radcliffe, Mr. M. Copeland.

As announced in the report for 1904–05, several of the courses (Zoölogy 5, 10, 11, and 13) have been expanded or altered in scope. The changes there announced as proposed changes have been carried out as far as they relate to the year 1905–06.

The course in technique (Zoölogy 4) was carried on as usual by Professor Mark with the aid of Dr. Rand, who had charge of the laboratory instruction and gave a few lectures on the histology of Glossiphonia, the animal studied in this course.

Zoölogy 6 (Organogeny of Vertebrates) was given for the first time; it is in future to alternate with Zoölogy 5. The laboratory work was confined to the study of the development of the more important organs in the chick up to the fifth day of incubation, and was in charge of Dr. Rand. The lectures were given by Professor Mark; the subject was treated in a comparative way.

In Zoölogy 11*a* and 11*b*, given by Assistant Professor Castle, three of the Graduate Students enrolled in the course attended the lectures without doing the laboratory work, and were allowed to count the two half-courses without laboratory as the equivalent of one half-course. Several of the investigations, which were chiefly on questions of heredity, will be presented for publication.

The work by one of the students in these courses, together with that carried on by students in Courses 10 and 11 in previous years and by the instructor, has been published as one of the Contributions (No. 177) from this Laboratory; that by another student is nearly ready for publication, and that of a third is incorporated with work done in Zoölogy 20 for a doctor's thesis.

With the expansion of former Zoölogy 13 into two half-courses (13 and 14), given by Assistant Professor Parker, it is planned to divide the field and to give the new courses in alternate years. During the past year Zoölogy 13 has been given, the lectures and laboratory exercises being limited to epithelial and nervous tissues.

Zoölogy 15, which alternates with 16, was given by Assistant Professor Parker as in 1903–04, except for the revision of the lectures. Five graduates besides those enrolled in the course attended the lectures. Of the nine topics assigned for investigation, four have yielded results for publication.

Of the sixteen students enrolled in Zoölogy 20, eleven carried on their work under the immediate supervision of Professor Mark, three under Assistant Professor Parker, one under Assistant Professor Castle, and one under Professor Mark and Assistant Professor Parker, jointly. Two Graduate Students in Radcliffe College also carried on special researches under Professor Mark.

Besides the doctors' theses presented by five of these, papers are completed or well advanced by most of the others.

The degree of Doctor of Philosophy was conferred in June, 1906, on the following students in Zoölogy, the title of the thesis immediately following the name in each case: Henry Bryant Bigelow, *Studies on the Nuclear Cycle of Gonionemus murbachii Mayer;* Leon Jacob Cole, *An Experimental Study of the Image-Forming Powers of Various Types of Eyes;* Arthur Day Howard, *The Visual Cells in Vertebrates, chiefly in Necturus maculosus;* John Hancock McClellan, *The Development of the Excretory System of Amia calva;* Hansford MacCurdy, *The Influence of Selection on Color Pattern in Guinea-Pigs and Rats;* Samuel Ottmar Mast, *Light Reactions in Lower Organisms: I. Stentor coeruleus;* Herbert Eugene Walter, *The Reactions of Planarians to Light.*

During the year, Assistant Professor Parker published Contributions Nos. 168, 169, 171, and 173. Assistant Professor Castle has published, besides Contributions Nos. 175–177, brief articles and reviews in "Science" and in the "American Naturalist."

Two numbers of the Contributions from the Bermuda Biological Station for Research have been published during the year: —

No. 7. BARBOUR, THOMAS. — Notes on Bermudian Fishes. *Bull. Mus. Comp. Zoöl. Harvard Coll.*, Vol. 46, No. 7, pp. 107–134, 4 pls. September, 1905.

No. 8. BLACKMAN, MAULSBY W. — The Spermatogenesis of the Myriapods. IV. On the Karyosphere and Nucleolus in the Spermatocytes of Scolopendra subspinipes. *Proc. Amer. Acad. Arts and Sci.*, Vol. 41, No. 13, pp. 331–344, 1 pl. September, 1905.

During the summer of 1906, six students worked at the United States Fisheries Bureau at Woods Hole, two of them being employed as assistants in the Bureau. Five students received aid from the Humboldt Fund during the summer of 1906, amounting to $137.14; four of them while working at Woods Hole, and one at Cambridge.

The meetings of the Zoölogical Club were held on the afternoon of Wednesdays throughout the year, the subjects presented being usually announced in the *Gazette*. There were twenty-five meetings, and fifty-five papers were presented, twenty-five of them being summaries of original work, most of which was done in this Laboratory.

CONTRIBUTIONS FROM THE ZOÖLOGICAL LABORATORY FROM JULY 1, 1905, TO JULY 31, 1906.

168. PARKER, G. H. — The Reversal of the Effective Stroke of the Labial Cilia of Sea-Anemones by Organic Substances. *Amer. Jour. of Physiol.*, Vol. 14, No. 1, pp. 1–6. July, 1905.

169. PARKER, G. H. — The Movements of the Swimming-Plates in Ctenophores, with Reference to the Theories of Ciliary Metachronism. *Jour. of Exp. Zoöl.*, Vol. 2, No. 3, pp. 407–423. August, 1905.

170. BLACKMAN, M. W. — The Spermatogenesis of the Myriapods. III. The Spermatogenesis of Scolopendra heros. *Bull. Mus. Comp. Zoöl. Harvard Coll.*, Vol. 48, No. 1, pp. 1–137, 9 pls. October, 1905.

171. PARKER, G. H. — The Stimulation of the Integumentary Nerves of Fishes by Light. *Amer. Jour. of Physiol.*, Vol. 14, No. 5, pp. 413–420. November, 1905.

172. CARPENTER, F. W. — The Development of the Oculomotor Nerve, the Ciliary Ganglion, and the Abducent Nerve in the Chick. *Bull. Mus. Comp. Zoöl. Harvard Coll.*, Vol. 48, No. 2, pp. 139–229, 7 pls. January, 1906.

173. PARKER, G. H. — Double Hens' Eggs. *Amer. Nat.*, Vol. 40, No. 469, pp. 13–25. January, 1906.

174. SMITH, G. — The Eyes of Certain Pulmonate Gasteropods, with special Reference to the Neurofibrillae in Limax maximus. *Bull. Mus. Comp. Zoöl. Harvard Coll.*, Vol. 48, No. 3, pp. 231–283, 4 pls. April, 1906.

175. CASTLE, W. E., and FORBES, A. — Heredity of Hair-Length in Guinea-Pigs and its Bearing on the Theory of Pure Gametes. *Publ. Carnegie Inst. Washington*, No. 49, pp. 1–14. May, 1906.

176. CASTLE, W. E. — The Origin of a Polydactylous Race of Guinea-Pigs. *Publ. Carnegie Inst. Washington*, No. 49, pp. 15–29. May, 1906.

177. CASTLE, W. E., CARPENTER, F. W., CLARK, A. H., MAST, S. O., and BARROWS, W. M. — The Effects of Inbreeding, Cross-breeding, and Selection upon the Fertility and Variability of Drosophila. *Proc. Amer. Acad. Arts and Sci.*, Vol. 41, No. 33, pp. 729–786. May, 1906.

178. PEARSE, A. S. — Reactions of Tubularia crocea (Ag.). *Amer. Nat.*, Vol. 40, No. 474, pp. 401–407. June, 1906.

179. MARK, E. L., and COPELAND, M. — Some Stages in the Spermatogenesis of the Honey Bee. *Proc. Amer. Acad. Arts and Sci.*, Vol. 42, No. 5, pp. 101–112, 1 pl. June, 1906.

E. L. MARK, *Director*.

DEPARTMENT OF GEOLOGY AND GEOGRAPHY.

To the President of the University: —

Sir, — With profound regret I record the death on the 10th of April, 1906, of Professor Nathaniel Southgate Shaler, the organizer and long time senior professor as well as guiding spirit of this Department.

During the first half of the year, Professor Shaler gave as usual his lectures on Dynamical and Structural Geology to the class in Course 4, and as well his lectures on Palaeontology in Course 14.

He started a course known as Comparative Geology (23 of the list), which, however, he was unable to complete. In its offering of courses for 1906–07 the Department decided to withdraw Courses 23 and 14 in Palaeontology. Professor Shaler was assisted in Geology 4 by Dr. P. S. Smith; in Course 14 by Mr. S. A. Starratt, Gr., who resigned early in the year and was replaced by Mr. W. M. Barrows, Gr., Austin Teaching Fellow, also Assistant in Course 23.

Professor Davis reports concerning the summer of 1905 that his return to Cambridge was delayed until after the beginning of the academic year on account of the journey around the east coast of Africa with the party of the British Association on their way home from the meeting in Cape Colony, the Transvaal, and Rhodesia. He reached Cambridge, November 4. During the winter a significant share of time was given to the preparation of articles embodying the results of observations in South Africa. The chief topics treated were: the Dwyka glacial formation, concerning which reports were made at the meeting of the National Academy in New Haven (November) and at the meeting of the Geological Society of America in Ottawa (December); the origin of the Veld, or the interior highland plain of South Africa; and the topographic development of the east and west Cape Colony ranges, which present many striking analogies with the Appalachians of Pennsylvania. Public lectures on the African excursion were given on several occasions.

Professor Davis's two courses of instruction remained unchanged from former years, except that an increased amount of laboratory work was added to the course on the Physiography of the United States in the second half-year. The latter half of the summer of 1906 was spent in Mexico, in connection with the meeting of the

International Geological Congress. Excursions were made to western Mexico, under the leadership of Sr. Ordoñez, to visit the modern volcano of Jorullo, famous for its description by Humboldt; to various points on the central plateau; and to the eastern slope and coast, where a good understanding was gained of the chief topographic features there developed.

Dr. P. S. Smith, Instructor in Geology, gave, with the aid of Mr. E. J. Saunders, the elementary course in Physiography (*A*) and assisted Professor Shaler in Course 4 during the first half-year. At the close of this period he resigned in order to engage in the geological work of the U. S. Geological Survey. Owing to changes in the personnel of the Department, Dr. D. W. Johnson, of the Massachusetts Institute of Technology, was appointed an Assistant Professor to give Courses *A* and 6, and Dr. G. R. Mansfield was promoted from an assistantship to be instructor in charge of Course 22 and Mining 28. Courses 9 and 17, formerly given by Professor Jaggar, have been withdrawn.

An elementary summer course in Dynamic and Structural Geology attended by nine students was given in Cambridge by Mr. J. W. Eggleston. An elementary course in the Physiography of the Lands was given by Dr. Mansfield to a class of eleven persons.

Professor R. T. Jackson was absent in Europe during the year, and Course 11 was therefore not offered.

Professor Ward reports as follows: Geology *B* (Elementary Meteorology) was formerly given at 11 o'clock, with three lectures a week, and two hours of laboratory work. The number of students averaged over 100. In 1903–04, 141 completed the course. In 1904–05 the hour of the lecture was changed to 3.30 P.M., and the number fell from 141 to 62. Last year (1905–06) the time required for laboratory work was increased from two hours to four. The number of students fell to 44. This reduction in the numbers in the elementary course has naturally been followed by a corresponding falling off in the higher courses, to which those only are admitted who have passed Geology *B*. In 1903–04 Geology 1 was taken by 16, and Geology 19 by 12 students. In 1905–06, following the great decrease in Geology *B*, the number in Geology 1 fell to 5 and in Geology 19 to 7. It is safe to predict a still further reduction in the numbers who will take Geology 1 and 19 this year, in view of the still further decrease in the number of available candidates who have taken Geology *B* (44 last year as against 141 two years before). The foregoing facts throw some light on the considerations which determine the election of small courses.

The Meteorological Observatory, completed in June, 1905, was used for the first time by the students in Course *B*, during the spring of 1906. A standard shelter has been erected on the roof, and the ordinary thermometers, thermograph, hygrograph, and rain-gauge are at present in working order out of doors. A barograph and a mercurial barometer are installed within. The shelter and platform have, so far as possible, been protected against damage by lightning in accordance with the most approved methods, and the instrument room, in the attic beneath the platform, has been changed in several respects in order to diminish the risk of fire. This work was done in 1905–06, under the direction of the Inspector of Grounds and Buildings.

Geology *B* has been strengthened by the extension of the period of laboratory work from two to four hours a week. In Geology 1, practical work with nephoscopes was introduced. In Geology 19, laboratory work was substituted for theses, with excellent results. In Geology 20*e*, Mr. K. S. Johnson, '07, constructed a series of charts of relative humidity for the United States, and these were shown at the Kimberley meeting of the South African Association for the Advancement of Science, and are to be published in the Report of the Association. A paper on "Tornado Insurance," written by Mr. H. E. Simpson, Gr., in Geology 19, during the year 1904–05, has been published in "The Monthly Weather Review," December, 1905. Mr. E. J. Saunders assisted Professor Ward in Course *B*.

Professor J. B. Woodworth reports that during the year he planned and carried out, with the assistance of Messrs. J. W. Eggleston, F. H. Sawyer, and H. N. Eaton, the laboratory and field work in Geology 4; the lectures and laboratory work in Geology 5, where again he was assisted by Mr. Eggleston, together with Messrs. E. E. White and Sawyer. Mr. Woodworth also gave Courses 8 and 16. In Course 20*c*, Mr. E. S. Bryant, '06, worked on the glacial geology of the Franklin sheet, and Mr. H. N. Eaton made a map of the Carboniferous strata and enclosed volcanics, extending east and west of South Attleboro on the Providence quadrangle, which together with a brief report is being prepared for publication. Instruction was also given by Mr. Woodworth to students in Radcliffe College. Considerable time was devoted to installing and arranging collections in the exhibition room of the Geological Museum. A still larger share of his time was consumed in his duties as Chairman of the Department.

The laboratory materials were increased as follows: stretched conglomerates from Tiverton and Newport, R. I., collected by Dr. G. R. Mansfield; a collection of Miocene fossils from Yorktown, Va., made by J. B. Woodworth during the April recess; specimens of Knox dolomite from Newport, Tenn., from H. S. Gale, U. S. G. S.

July was devoted by Mr. Woodworth to the New York Geological Survey, mainly in completing the glacial map of the Schuylerville quadrangle. On the 23d of August he proceeded by sea to Vera Cruz in order to attend the International Congress of Geologists held in Mexico.

Professor Jaggar conducted the advanced field courses, Geology 22 and Mining 28, as usual, with the assistance of Dr. Mansfield. Students of Course 22 mapped areas hitherto unexplored by this class between Lawrence and Topsfield. A voluntary course of lectures on the "Structural Provinces of the United States" was given in the autumn of 1905 to advanced students. In February, 1906, Professor Jaggar gave a course of four public lectures in the Colonial Theatre, Boston, under the auspices of the Twentieth Century Club, on "The Earth as a Living Organism." In the spring of 1906, Mr. H. G. Ferguson made experiments on rill erosion in the laboratory of Experimental Geology. Mr. Ferguson spent the summer of 1905 in Iceland and has since published in the *Journal of Geology* an account of Miocene glacial deposits there. Dr. G. R. Mansfield completed a thesis for the doctorate of Philosophy entitled "Origin and Structure of the Roxbury Conglomerate." This essay is to be published as a Bulletin of the Museum. Professor Jaggar finished during the year his share on the text and maps of the Sturgis-Spearfish Folio of the Geologic Atlas of the United States, issued by the United States Geological Survey. This production is the outcome of two seasons' field work in the northern mining district of the Black Hills, South Dakota. In April, 1906, he went to Naples on behalf of Mr. Alexander Agassiz, to make notes and collections at the scene of the recent eruption of Vesuvius. September 1, 1906, Dr. Jaggar resigned his assistant professorship.

The sub-committees of the Department present the following reports.

The Committee on the Gardner Collection of Photographs (Messrs. Ward and Woodworth) report as follows.

The accessions include a set of films and lantern slides representing views in Montana taken by J. B. Woodworth, a series of photographs from New Zealand brought to the Department by Professor Davis, lantern slides purchased of the Palestine Exploration Society, and several gifts of isolated photographs. Mr. Charles M. Farnham was employed at intervals during the year in renovating the slides. He made considerable progress in the numbering of the negatives and films; but owing to the lack of the necessary assistance the usual cataloguing of new views was not maintained. The regular duties of the present teaching staff of the Department preclude giving the necessary time to this work. A person with the requisite knowledge of geography and geology to insure the correct description and cataloguing of the rich materials annually brought to this collection is a pressing need of the Department. The accompanying table presents the condition of the collection.

State of the Collection, July 1	Photographs.	Slides.	Negatives.
Accessions since last report	47	483	99
Unidentified views	253	30	0
Duplicates	144	51	0
Broken	0	0	0
Condemned	0	0	0
Last accession number	5701	4741	0
Number now in collection	5629	5056	1236

The Committee on the Geological Museum (Messrs. Woodworth, Wolff, and Jaggar) report that through the generous interest of Mr. R. W. Sayles, '01, the Corporation received the gift of five thousand dollars, the income of which is "preferably to be devoted to the acquisition, preparation, and maintenance, of collections suitable for a museum of geology and geography." It should be stated that the Museum stands in immediate need of several thousand dollars for the construction of exhibition cases. By a transfer of large specimens and certain models already in the teaching collections of the Department, the cases now constructed have been partially filled with the nucleus of a collection, some of which will naturally be replaced by better and newer material as soon as it can be obtained. The labelling of the exhibits has been begun. A printed label (4½ × 1½ in.) has been adopted as suitable for recording the leading data concerning the numerous exhibits.

The Committee has received the following gifts: Glaciated pebbles and tillite from the Carboniferous Dwyka conglomerate of South Africa, collected in 1905 by Professor W. M. Davis; sand-blasted parts of trees from the dunes of Ipswich, Mass., collected by Mr. Albert Morse; ashes from the eruption of Mont Pelée, Martinique, May 20, 1903, gift of Mrs. N. S. Shaler.

The Committee on the Josiah Dwight Whitney Scholarship (Professors Davis, Jaggar, and Woodworth) recommended that a scholarship of $200 be awarded to Mr. Howard E. Merwin, a student in the Lawrence Scientific School, for defraying the expense of ten weeks' work during the summer of 1906 upon the ancient Pleistocene shore lines of Vermont, which task Mr. Merwin has satisfactorily carried out, and a report is now in preparation.

The following is a list of publications which have appeared since the last report: —

1. Glaciation of the Sawatch Range, Colorado. By W. M. Davis. *Bull. Mus. Comp. Zoöl.*, XLIX, 1905, pp. 1–12, 1 pl.

2. The Wasatch, Canyon, and House Ranges, Utah. By W. M. Davis. *Ibid.*, pp. 13–56, 3 pls.

3. The Geographical Cycle in an Arid Climate. By W. M. Davis. *Geogr. Journ.*, XXVII, 1906, pp. 70–73.

4. The Sculpture of Mountains by Glaciers. By W. M. Davis. *Scott. Geogr. Mag.*, XXII, 1906, pp. 76–89.

5. The British Association in South Africa. By W. M. Davis. *The Nation*, November 16 and 23, 1905.

6. An Inductive Study of the Content of Geography. By W. M. Davis. *Bull. Amer. Geogr. Soc.*, 1906.

7. Incised Meandering Valleys. By W. M. Davis. *Bull. Geogr. Soc., Philadelphia*, IV, 1906, No. 2, pp. 1–11.

8. A Day in the Cévennes. By W. M. Davis. *Appalachia*, XI, 1906, pp. 110–114, pls. 16–17.

9. A New Species of Fossil Limulus from the Jurassic of Sweden. By R. T. Jackson. *Arkiv för Zoologi*, III, 1906, No. 11, 7 pp.

10. The Climatic Zones and their Subdivisions. By R. DeC. Ward. *Bull. Amer. Geogr. Soc.*, XXXVIII, 1906, pp. 385–396.

11. Suggestions concerning a More Rational Treatment of Climatology. By R. DeC. Ward. *Report of 8th Internat. Geogr. Congress*, 277–293.

12. The Hygiene of the Zones. By R. DeC. Ward. *Bull. Geogr. Soc., Philadelphia*, IV, 1906, No. 2, pp. 29–55.

13. The Classification of Climates. By R. DeC. Ward. *Bull. Amer. Geogr. Soc.*, XXXVIII, 1906, pp. 401–412, 465–477.

14. Professor Shaler. By J. B. Woodworth. *The Harvard Illustrated Magazine*, VII, April, 1906, pp. 133–136 (with portrait).

15. Book Review in *The Nation*. By J. B. Woodworth.

16. Administrative Report of work done in New York in 1903. By J. B. Woodworth. Embodied in Report of the State Geologist, Dr. J. M. Clarke. *57th Annual Report of the N.Y. State Museum, Albany, N.Y.*, 1904, pp. 8–12.

17. Administrative Report of work done in New York in 1904. By J. B. Woodworth. Embodied in Report of the State Geologist, Dr. J. M. Clarke. *58th Annual Report of the N.Y. State Museum, Albany, N.Y.*, 1905, pp. 18, 19.

18. Administrative Report of work done in New York in 1905. By J. B. Woodworth. Embodied in Report of the State Geologist, Dr. J. M. Clarke. *59th Annual Report of the N.Y. State Museum, Albany, N.Y.*, 1906, p. 20.

19. Description of Bradshaw Mountains Quadrangle, U. S. G. S. By T. A. Jaggar, Jr., and C. Palache. *Geol. Atlas*, folio 126, 1905, 3 geological maps.

20. Post-Pleistocene Drainage Modifications in the Black Hills and Bighorn Mountains. By G. R. Mansfield. *Bull. Mus. Comp. Zoöl.*, XLIV, 1906, pp. 57–87, 4 pls.

J. B. WOODWORTH, *Chairman*.

THE DEPARTMENT OF MINING AND METALLURGY.

To the President of the University: —

Sir, — At the beginning of the academic year 1905–06 the number of students enrolled in the programme of Mining and Metallurgy in the Lawrence Scientific School was 68. The corresponding numbers since 1896 are given in the table below.

	'96–97	'97–98	'98–99	'99–00	'00–01	'01–02	'02–03	'03–04	'04–05	'05–06
Students in Mining and Metallurgy .	13	17	19	30	42	67	75	68	67	68
Students in the L. S. S.	368	410	415	495	507	549	584	548	530	504
Per cent.	3.5	4.1	4.6	6.1	8.3	12.2	12.8	12.6	12.6	13.4

In 1906 the number of persons who received the degree of S.B. in Mining and Metallurgy was seven, three of these degrees being conferred with distinction. In addition three men received the higher degree of M.E. after a year of graduate study.

Courses of Instruction.

No considerable changes in studies were made during the year. One new course was added to the programme, namely, Course 30, Mining and Metallurgical Projects and Design. This is intended only for those Graduate Students who are candidates for the degree of M.E. or Met.E. Also the courses of the graduate year were better organized and put in good working order. In this rearrangement the intensive principle was followed as far as possible. Thus candidates for the degree of M.E. begin the year with Course 8 and give nearly all their time to it until early in November. This is then followed through the year by Courses 22, 30, 24, and 17, each of which is completed before the next is taken up. Concurrently with this work the candidates take one or two courses in other departments, which come in the usual three periods a week.

Our experience of a year with the intensive system has demonstrated that much of our work may easily and advantageously be adapted to it. It has two important advantages, namely, in the aggregate more work is accomplished than if the subjects are spread out over the usual longer periods; and the interest of both student and teacher is better sustained. An additional advantage is that a student may enter even late in the year and finish a complete body of work without having to make up back work. But this advantage is offset by the correlative disadvantage that time lost through illness or otherwise cannot be made up in the same year. The only other disadvantage which we have found as yet is in the difficulties of adjustment with the three period a week courses in other departments. On the whole, however, the results have been so satisfactory that the Department will extend this system as far as possible to its higher courses which form part of its programme in the new Graduate School of Applied Science.

THE GRADUATE SCHOOL OF APPLIED SCIENCE.

This Department heartily favored the establishment of the Graduate School of Applied Science for several reasons, chief among which was that it promises to liberalize as well as to extend the period of training of Mining Engineers and Metallurgists, and hence to secure for these professions better all-round men. Mining Engineers in a sense are custodians and trustees as well as exploiters of the limited mineral resources of the world, and these important duties should be performed by men of broad mind and the most liberal training.

In consequence of the additional study required through the establishment of this School the student will leave us better prepared for entering on his life work. Besides this advantage (which will result from the mere addition of a year to his period of study) the student should derive even greater advantage from the nature of the work. This is of such character as to develop his initiative, to cause him to think for himself, and to solve problems without depending on the systematic and constant assistance of his teacher. Through this additional period of study the student will also have opportunity for greater specialization along any of the lines pertaining to the professions of Mining and Metallurgical Engineering.

The Department hopes that the new school will be attractive to graduates of power and capacity, not only of Harvard College, but of other colleges and scientific schools as well. Such men will be welcomed, and whenever possible will be admitted to our work without regard to whether they have completed all the desirable preparation or not. At the same time, it is evident that the requirements in the fundamentals — in mathematics, physics, chemistry, and geology, — cannot be greatly relaxed.

LECTURES, GIFTS, ETC.

During the year the Department had the benefit of several lectures by Mr. Woolsey McA. Johnson, on Electro-Metallurgy. The system of short series of lectures on special topics by experts is one that commends itself to the Department as very useful and capable of large extension. Through a welcome gift from the Visiting Committee an important advance in this direction will be made this year in securing a repetition of Mr. Johnson's lectures, and those of others on Coal Mining, Cost-Keeping, etc.

The Visiting Committee also gave money to be used in paying the expenses of members of the Department in visiting mines and metallurgical works. The younger teachers especially will thus be helped to get and keep in touch with actual operations to the great benefit of their work as instructors. In the case of the senior teachers the benefit is not so marked, as they for the most part are actively engaged in the work of their professions.

Dr. Peters has been at work during the year on his new book, "The Principles of Copper Smelting," which is expected to appear in January, 1907.

Professors Sauveur and White spent part of the summer in England and on the Continent. In London they attended the joint meeting of the Iron and Steel Institute and the American Institute of Mining Engineers, and both read papers — Professor Sauveur on "The Constitution of Iron-Carbon Alloys," and Professor White on "A New Colorimeter" of his own invention.

At the May meeting of the Iron and Steel Institute of Great Britain, Dr. H. C. Boynton presented a report of his research on the hardness of the various constituents of steel, which he had carried out as Carnegie Scholar. At the same meeting his Carnegie Scholarship was extended for another year in order to permit this valuable research to be completed. At the end of the year Dr. Boynton resigned his instructorship in this Department in order to take a much more remunerative position with a large steel works. It was with much regret that his resignation was accepted.

During the year positions were found for fourteen men. This includes nearly all the graduates of last year and several graduates of preceding years. Some of the latter obtained excellent places on the recommendation of the Department.

Summer Work.

As in the preceding year Mining 12 was given in three parts. The first part, Mine Surveying, was required of all students. This part of the course was in charge of Mr. E. E. White, assisted by Mr. E. M. Sawyer, and as usual was given at the Elizabeth Mine, South Strafford, Vermont. The class of eleven students met at South Strafford on June 16. The underground work was completed and the maps platted by June 26.

The second part of the course consisted of a voluntary excursion to the Lake Superior region. This was in charge of Professor Raymer. The party assembled in Ishpeming, Michigan, on July 2d, and remained in the Lake Superior country about three weeks. During this time ten days were spent on the Marquette Iron Range, with headquarters at Ishpeming. Through the courtesy of the Cleveland Cliffs Iron Company, the Pittsburgh and Lake Angeline Mining Company, and the Oliver Iron Mining Company the class were enabled to visit all the principal mines on the Range. The blast furnace of the Pioneer Iron Company at Marquette was visited, and the students had an opportunity of studying the operation of a modern by-product charcoal plant. A week was spent in the Copper country, and the underground workings of several of the important mines were opened to the class. Mr. F. W. Denton, General Manager of the Copper Range Copper Company, showed the class many courtesies and gave them much valuable information.

In Minnesota, the class were very hospitably received by the officials of the Oliver Iron Mining Company, through whose courtesy the most interesting mines on the Vermilion and Mesabi Ranges were opened to their inspection.

As in the preceding year the third part of the course consisted of practical work underground, which was done by the student in a district of his own selection and without supervision. A written report and note-book containing his notes and sketches are accepted as evidence of the performance of this portion of his task.

Needs of the Department.

In my reports of preceding years not much has been said regarding the material needs of the Department and of the directions in which it is advisable that our work should be extended. It seems desirable to set forth these needs in some detail here.

The most pressing need of the Department is more room. The Rotch Building, while not unsuitable in many ways for the purposes of the Department, is decidedly too small. We need another large lecture room, several smaller rooms for classes and for instructors' private laboratories, for a museum and for a reading-room; and rooms in which Graduate Students could keep their books and papers, and in which they could study. We also need more room for the metallurgical laboratory work.

The museum should contain special mining and metallurgical models of shafts, furnaces, etc., showing details of equipment and construction. It should also contain a well selected series of specimens illustrating metallurgical processes and products.

Our library is a small one, and contains little more than the principal text-books and laboratory hand-books. We need especially full sets of the proceedings of the principal technical societies and of the files of the principal mining and metallurgical journals.

The most practicable way in which extra space could be secured would be to add a large one-story wing, 50 × 80 feet, to the west end of the Rotch Building, and provide it with a high basement. Also there is a large amount of waste space over the chemical laboratory. The second floor could be extended over this room, and by putting in dormer windows several rooms of useful size could be obtained at small cost. The basement in the west wing could accommodate the iron and steel laboratory, which thus could be removed from the east wing and leave additional and much needed space for sulphide metallurgy. These changes could be made, including equipment and expense of moving, for about $30,000.

The part of our work which most needs extension and improvement is the work of the summer. We need to give more time to mine surveying and to practical mining work; and, furthermore, we need a mine of our own in which these subjects may be taught uninterruptedly. At present our summer course in Mining 12 consists in part of mine surveying, in part of an excursion, and in part of independent and unsupervised underground work in the mines. The underground surveying, as at present given, is in a fairly satisfactory state; the course ought, however, to be lengthened so that the students would be required to spend about three weeks at the mine instead of ten days. Mine Surveying is a subject that can be well taught in the school, and the student can attain in it a considerable measure of skill and facility. It is one of the two subjects, assaying being the other, through which a student may readily obtain a foot-hold in mining work.

The excursion in Mining 12 is kept up for two reasons. One object is to give the student such an acquaintance with mining operations as will enable him to follow intelligently the lectures in this subject which come during the following year. The other object is to give him, before he settles down to his life work, perhaps in one district, a general view of mining practice in several districts. The first of these objects could be better attained if the time could be spent in a mine of our own, in which the student could work as in a laboratory. As regards the second, there can be no doubt that the student would profit more from the excursion if it followed the lectures instead of preceding them.

The third part of the course, the unsupervised work of the student in the mines, is the least satisfactory. Most students come back to Cambridge with some knowledge of what a day's work is, but with very little more.

In order to improve these conditions the Department is desirous of getting a small mine of its own, which would be run for Department purposes only, and in which students could be instructed in the fundamental operations of mining. These operations should be approached from the engineering point of view, analyzed into their elements, and each element studied. It is impossible for students working as laborers in operating mines to do this. Such a mine would also be useful for Graduate Students, for sampling and geological study. To meet our requirements, the mine should have considerable ground open above drainage level, and should require no pumping; the rock should be hard so that the cost of maintenance would be small; and, lastly, it should not be too far away from Cambridge. It is believed that a satisfactory selection could be made among several abandoned properties in New England, and that such a mine could be bought and equipped for a moderate sum, and maintained as a laboratory at a small annual cost.

We also need a summer course in Metallurgy, which, at least at the beginning, should consist of a tour of inspection through metallurgical establishments. This course cannot be established until we get a thoroughly competent assistant in sulphide metallurgy.

PUBLICATIONS.

The following publications by members of the Department have appeared during the last academic year: —

The Anatomy of a Steel Rail. H. C. BOYNTON. *Harper's Magazine*, March, 1906.

The Hardness of the Constituents of Iron and Steel. H. C. BOYNTON. *Journal of the Iron and Steel Institute*, Vol. II, London, 1906.

Field Training of Students in Mineral Land Surveying. G. S. RAYMER. *Mining Reporter*, May, 1906.

The Iron and Steel Magazine, Vol. X, 1905, and Vol. XI, 1906. A. SAUVEUR, *Editor*.

Iron Manufacture. A. SAUVEUR. *Encyclopedia Americana*, 1905.

Steel Manufacture. A. SAUVEUR. *Encyclopedia Americana*, 1905.

The Constitution of Iron-Carbon Alloys. A. SAUVEUR. *Journal of the Iron and Steel Institute*, London, 1906.

The Relation of Gold and Pyrite. H. L. SMYTH. *Mining and Scientific Press*, July 14, 1906.

A New Colorimeter for the Determination of Carbon in Steel. C. H. WHITE. *Transactions of the American Institute of Mining Engineers, London Meeting*, July, 1906.

H. L. SMYTH, *Chairman*.

MINERALOGICAL MUSEUM AND LABORATORIES OF MINERALOGY AND PETROGRAPHY.

To the President of the University: —

Sir, — There were no changes in the courses of instruction for the year. It seems to me that the quality of the students taking our courses has been improving for some time; for instance, this year, in the course in elementary petrography (Mineralogy 12), out of eleven students completing the course only one received a grade lower than *B*.

In part by the help of a friend of the Department, extensive improvements in the equipment for teaching and research have been made in the laboratories, some details of which follow: —

Lighting. — The whole lower floor, containing the lecture-room, large laboratory, and two smaller rooms, has been equipped with the Nernst electric light, which had previously given such good satisfaction in the exhibition rooms, and affords a strong white light, especially useful in dealing with minerals, and by replacing gas improves the ventilation appreciably.

Instruments, Models, and Specimens. — In optical mineralogy, a Klein crystal refractometer for determining the indices of refraction in small crystals or plates; a set of eight large sectional wooden models of the optical indicatrix after Professor Duparc; glass models illustrating the double-refraction of calcite and the construction of the Nicol prism, and five large plaster models after Professor Becke, illustrating certain optical properties of thin sections. In crystallography, sixty-nine large models of glass and wood, with stands and holders; large models of the crystal axes. In petrography, four new Bausch & Lomb petrographical microscopes; a Zeiss binocular microscope for the study of small crystals and rock powder; the great collection of two hundred and twenty-seven eruptive rocks from the Christiania basin, with thin sections, and eight hundred new thin sections of miscellaneous rocks, or about one thousand in all; smaller collections of rocks from Mexico and elsewhere.

Systematic and Exhibition Collections of the Museum. — Individual gifts were received of several valuable specimens, and a number of examples of the rarer minerals not previously represented were purchased in America and abroad; also some groups for the wall cases of the exhibition rooms. The collection of meteorites was increased by several Finland falls (by exchange) and by new American falls, including the gift of a fine slab, weighing forty pounds, of Estacado, Texas. More than the usual amount of re-labelling, and re-writing of faded labels, was done.

With such accessions and improvements we ought to appear contented, only these additions of one year to our already extensive plant increase by so much the mechanical labor involved in the proper use and care of so many objects; the labelling of specimens and sections, and the taking out and putting away for lectures and laboratory work, is a constant drain on the energy and time of the officers; and yet the work can be done not by temporary assistants, who would have to learn anew from year to year, but only by a permanent, handy man, of good intelligence.

Professor Palache has been engaged during the winter and part of the summer in the completion of a monograph on the minerals of Franklin Furnace, and has begun a similar work on the Lake Superior region. He has published the following paper: On Octahedrite, Brookite, and Titanite, from Somerville, Massachusetts, U. S. A. (with 8 text figures). Festschrift Harry Rosenbusch, pp. 311–321. The Curator spent the summer in travel in Mexico, also attending there the sessions of the Tenth International Geological Congress, and incidentally ascending the volcanoes of Colima and Orizaba.

JOHN E. WOLFF, *Curator.*

THE PEABODY MUSEUM OF AMERICAN ARCHAEOLOGY AND ETHNOLOGY.

To the President of the University: —

Sir, — By the death of Mr. Stephen Salisbury on November 16, 1905, the Museum lost an active member of its Faculty and a generous patron. Mr. Salisbury was a member of the Board of Trustees from 1887 until the Trustees, by special Act of Legislature, made over their trust to Harvard College in 1897, and since that time he was a member of the Faculty of the Museum, and was seldom absent from its meetings. Mr. Salisbury was deeply interested in our archaeological researches in Yucatan, and for several years he had contributed largely to our subscription fund for research in Central America and Mexico. He also aided the Museum in other ways. His latest gift was applied to the electric lighting of the library, laboratory, and work-rooms of the Museum. At the annual meeting of the Faculty of the Museum, held on January 15, 1906, Mr. Augustus Hemenway was unanimously nominated to fill the vacancy caused by the death of Mr. Salisbury, and this nomination was confirmed at a meeting of the President and Fellows of Harvard College on January 29.

From our Central American explorers we have received much valuable material for the further study of the physical characters, arts, culture, and hieroglyphic writing of the ancient peoples of that region. From Mr. Edward H. Thompson we have received a number of moulds of interesting sculptures at Chichen Itza, and from Mr. Teobert Maler, moulds of sculptures discovered by him. Mr. Maler has sent in an extensive report, with many beautiful photographs to illustrate the texts. This report will soon be published as one of our Memoirs. The deplorable fact that it is impossible to exhibit any more casts of these Central American sculptures and hieroglyphs, and thus make them available to students, adds emphasis to my several appeals for the means to complete the Museum building.

The fourth annual expedition to the State of New York was conducted by Mr. M. R. Harrington as in former years. An exploration of an ancient Iroquois site yielded a good collection of implements, ornaments, pottery, and skeletons. Among the objects are some new forms and a few rare types. This work was carried on by means of the Henry C. Warren Exploration Fund, aided to a small extent by the income of the Huntington-Frothingham-Wolcott Fund. The Museum is deeply indebted to Mr. H. J. Heath of Rodman for his many kindnesses to members of the expedition as well as for his gift of several interesting pottery pipes and stone implements. We are also indebted to Dr. Getman of Chaumont, Mr. N. H. Oatman of Adams Centre, and Messrs. Kilmer of Pierrepont Manor for specimens made of pottery and stone given to Mr. Harrington for the Museum.

During the summer of 1906 Mr. Ernest Volk continued his researches for the Museum in the glacial deposits near Trenton, N.J., in connection with my long-continued study of the antiquity of man in the Delaware valley. Several paleolithic implements were found, and additional geological facts were obtained in confirmation of the antiquity of man in the valley. This work was done by the gift of Mr. Clarence B. Moore.

The Peabody Museum South American Expedition is organized and will start about the middle of December. Arequipa, Peru, will be the field headquarters. The purpose of the expedition is to study the native peoples of the Eastern Andean region of Peru, Brazil, Bolivia, and Argentina. The anthropological material secured will be the property of the Museum, and other divisions of the University Museum will be remembered by the party while in South America. This expedition is under the patronage of a Harvard graduate, and it will be continued for three years. The Museum is very much indebted to President Roosevelt and to Secretary Root for the personal interest they have taken in this expedition, and for their kindness in giving personal letters endorsing the objects of the expedition as well as official letters to our diplomatic corps in the several countries which will be visited by the members of the expedition.*

I also have the pleasure of gratefully acknowledging the most generous offers of courtesy and assistance from the President of the Inca Mining Company of Tirapata (Peru), Mr. C. P. Collins, who has requested the General Manager in Peru to coöperate with the expedition in every way possible and to extend to the party all the courtesy of the company without charge, including the facilities of its transportation lines and commissary department. Thanks are also due to the National Phonograph Company for the gift of a phonograph and record blanks for the use of the expedition.

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* Since this report was submitted notice has been received from the Department of State that the courtesies of the Peruvian Government will be extended to members of the expedition.

At the annual meeting of the Faculty of the Museum in January, 1906, Dr. R. B. Dixon was appointed Assistant in Ethnology and Librarian of the Museum, and Dr. W. C. Farabee was appointed Assistant in Somatology. The Faculty of the Museum has appointed Mr. Louis J. de G. de Milhau (A.B. 1906) and Mr. John W. Hastings (A.M. 1906) members of the Museum staff as Ethnologists of the South American Expedition. Dr. Farabee has been appointed Field Director of the Expedition, having been granted leave of absence by the University.*

The income of the Huntington-Frothingham-Wolcott Fund has been used for the purchase of rare specimens needed in our exhibits, for the making of a number of small models of Indian habitations for our North American Indian Hall, and, to a small amount, for the archaeological expedition to New York State.

The income of the Susan D. Warren Fund has been applied to the cost of cases in the Indian gallery, in accordance with a vote of the Museum Faculty.

During the year Mr. Willoughby has given particular attention to the identification and labelling of the collections from the Pacific Islands and from the various American Indian tribes. In connection with the latter exhibit he has carefully superintended the construction of several models representing the dwellings and customs of the North American Indians, and we hope to add to these models from time to time until we have the various types of habitations represented in this way. He has rearranged several archaeological collections so as to bring them into closer geographical connection, and has added a number of framed groups of photographs illustrating the physical characters, dress, and customs of the different peoples, in connection with the ethnological collections.

We are indebted to Mr. S. J. Guernsey for his skilful modelling of the houses in the Haida group and the small human figures in the several model groups.

The Anthropological Library has been rearranged under the direction of Assistant Professor Dixon in accordance with the method adopted in the University Library. The library has received valuable gifts from friends of the Museum and Division, and has added some important exchanges during the year. 151 volumes and 149 pamphlets were added, making the total 3,422 volumes and 3,070 pamphlets.

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* Since this report was submitted, Edward F. Horr, M.D., has been appointed Surgeon of the expedition by the Faculty of the Museum.

During the past year the Museum has issued one of its serial papers, "The Mandans: A Study of their Culture, Archaeology, and Language." By G. F. Will and H. J. Spinden. *Peabody Museum Papers*, Vol. III, No. 4, 1906. The archaeological section of this paper is based on the exploration at Mandan, North Dakota, carried on by the authors last summer. The material collected, which is now in the Museum, is described and illustrated. The study of Mandan Culture and Language was made under the supervision of Assistant Professor Dixon, who also superintended the beginning of the field work at Mandan. This exploration and publication were made possible by the gift of Mr. Clarence B. Moore.

Dr. Dixon has given instruction in the Division for the past ten years, and has now been promoted to an Assistant Professorship. Dr. W. C. Farabee has been given leave of absence from the Division to take charge of the South American Expedition. Course 1 will be given by Assistant Professor Dixon and Dr. Tozzer. Dr. Charles Peabody will give Course 4. In December, 1905, Dr. Peabody was appointed, by the Board of Overseers, a member of the Visiting Committee of the Museum and Division, but at the close of the College year he resigned from this Committee to accept the appointment of Instructor in European Archaeology and Ethnology in the Division. The special courses in Somatology, given by Dr. Farabee, will be omitted in 1906–07. A new research course is to be offered by Dr. Tozzer, — Central American and Mexican Hieroglyphic and Picture Writing. Mr. Stefánsson, Hemenway Fellow and Assistant in the Division, was given leave of absence on April 30 to accompany as ethnologist the Anglo-American Expedition among the Arctic Eskimo. Mr. H. J. Spinden (A.B. 1906) has been appointed Hemenway Fellow and Assistant in Anthropology for 1906–07.* Mr. Irwin Hayden has been reappointed Winthrop Scholar for 1906–07.

During a portion of the summer Dr. Dixon continued his researches, linguistic and ethnological, among the Indians of California. Later he attended the International Congress of Americanists, and presented a paper on "Linguistic Relationships within the Shasta-Achomawi Stock."

Dr. Farabee spent some time in making an examination of the pre-historic earthworks in the Ohio valley, and in personally exploring the Bryson Mound, which yielded a small but interesting lot of specimens for the Museum.

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* This appointment was afterward changed to Austin Teaching Fellow in Anthropology.

On February 27 Dr. Tozzer started on a four weeks' lecture trip under the auspices of the Archaeological Institute of America, including in his itinerary nineteen of the principal cities between Boston and Chicago. His lectures, which were given before universities and other educational institutions, presented the results of his four years of research in Central America while holding the American Fellowship of the Institute as well as of his studies in the Museum. These lectures were so successful in interesting many persons in archaeological research in America, that he has been requested by the Institute to give a series this year in the principal cities from Chicago to the Pacific coast. This invitation he will be obliged to decline owing to his duties in the Division and Museum. Dr. Tozzer spent the summer in Europe, studying the Spanish manuscripts in the Archives of the Indies at Seville, and, later, in visiting the principal museums of Europe. On his return he presented the following papers before the International Congress of Americanists: "Some Survivals of Ancient Forms of Culture among the Mayas of Yucatan and the Lacandones of Chiapas," and "Notes on the Maya Language spoken in Yucatan."

Fortunately for our Museum as well as for the students of ethnology, our good friend, Mr. Lewis H. Farlow, has continued his intelligent collecting of objects illustrative of the life and customs of the North American Indians, and has given to the Museum all the specimens he has secured. During the past year he has added a wealth of rare old material to the already large collection exhibited in his name. Among the recent additions are: Specimens illustrating the culture of the Kwakiutl and Nootka branches of the Wakashan tribes of southwestern British Columbia and Vancouver Island, including clothing, ceremonial paraphernalia, weapons, basketry, and other household utensils; from the Quinault, Quilliute, and other tribes of the Salishan family, baskets and other objects, including several jade celts from the Fraser river region; from the Hupa and Yurok of the Trinity and Klamath rivers, California, a very complete collection, including the ancient slat armor belonging to Cañon Tom, also beautiful headdresses of woodpecker heads and feathers, an ornamented deerskin, and other objects worn and used in the White Deer Skin and Jumping Dances; from the Weigat of Humboldt bay, several important objects; from the Pomo, a complete doctor's outfit, a dance costume, baskets, household utensils and mats, and a ceremonial drum made in 1869 from an old dugout canoe, used until 1876, and after the annual ceremony of that year hidden in a house for years and then removed and placed in a pond in Lake County, California, whence it was taken by Cah-i-da-no, an old Pomo chief, the only man living who knew where it was concealed; from the village of Pojuaque, an extinct Rio Grande Pueblo, an interesting ceremonial drum made of a hollowed section of a cottonwood log with rawhide stretched across either end; from the Eskimo of Kuskokwim river, Alaska, nine pottery lamps and three cooking vessels. Other tribes represented are the Nez Percé, Ute, Crow, Cheyenne, Winnebago, Apache, Navajo, Washoe, and the Yuman and Shoshonean tribes of California. One of the most valuable objects in Mr. Farlow's collection of the past year was obtained from a Mission Indian of Southern California, — a ceremonial knife with a large leaf-shaped flint blade set in a long wooden handle, the part nearest the blade being inlaid with small pieces of Haliotis shell. The specimen is very old and of a prehistoric type, as shown by a fragment of a similar inlaid handle found in a burial-place on Santa Catalina Island.

Dr. L. C. Jones of Malden continues to manifest an enthusiastic interest in securing specimens for the Museum. Our exhibits bearing his name have been increased during the past year as follows: Ceremonial paddle from the Austral Islands; shark's tooth spear from the Gilbert Islands; Samoan club; Fiji missile club; Tonga club; New Guinea belts, headdresses, and armlets; war clubs from New Caledonia; shield, bow and arrows from the Solomon Islands; beaded bag from the Winnebagos; several stone pipes from the Micmac Indians of Nova Scotia; a carved stone pipe from Eastern United States; a terra cotta pipe and stone carving from a grave at Nantasket; an old Algonkin club and Sioux tomahawk; a Moki bowl and a bead ornament belonging to Geronimo; a water jar from Pueblo of Sia, and an old Cochite bowl; a Tlingit canoe model; potsherds from Missouri, New York, Florida, and Central America; stone implements from Maine, Massachusetts, Kentucky, Indiana, Pennsylvania, Arkansas, Tennessee, and other parts of the United States; stone implements and shell celt from the West Indies; gourd and tube for drinking maté, from Buenos Aires, also a clay maté cup; a pipe from Africa; a small Egyptian bust; Egyptian beads; terra cotta bust and glass vessel from near Rome; and a Japanese bronze plate.

Miss Adela C. Breton of Bath, England, has continued her gifts to the Museum by sending us two colored drawings of the caryatid figures supporting the altar, and of the figures on the top of the altar, at the entrance of the Painted Chamber in the Temple of the Tigers: a hand-painted copperplate of a portion of the fresco on the south ceiling of the Painted Chamber, and full-size reproductions of portions of the mural paintings in the Chamber; also a colored drawing of a portion of a fresco in the Monjas, Chichen Itza.

By gift of Miss Mary L. Ware of Boston, we have secured Miss Breton's reduced copies of her water-color drawings of the Chichen Itza mural paintings, which were exhibited at the Quebec meeting of the Americanists. All these paintings by Miss Breton are accurate reproductions of the figures and colors of the ancient bas-reliefs, sculptures, and mural paintings, and were made by her with great labor and painstaking. With the feeling of the true artist and with full appreciation of the scientific importance of accuracy in copying these prehistoric works, Miss Breton spent several seasons among the ruins, giving her time, strength, and skill to making these invaluable copies for the further elucidation of the story of the ancient peoples of Yucatan.

Miss Ware's gift has secured for us by purchase another old manuscript volume of 356 pages in the Pocom language of Guatemala, discovered by Mr. Robert Burkitt. It is the longest text known in this language, and was probably written about two hundred years ago by Dominican missionaries.

Through Miss Ware's kindness we have also been able to secure the services of two student assistants, who spend a portion of their time in assisting in the library work of the Museum and in taking care of the library during the hours it is open to students in anthropology.

From other friends of the Museum we have received the following gifts: —

Miss Grace Nicholson, a Makah dugout canoe, a piece of tule matting from an ancient sweathouse, Sulphur Lake, Cal., a model of a boat, Neah Bay, Washington, face paint of the Quinault, and soaproot used in washing the Pomo baskets; Mr. Charles P. Bowditch, a palm spathe cap worn by Indians of Colombia; Mrs. H. T. Field, an old Hawaiian mat, formerly the property of King Kamehameha III; Mrs. Crosby Brown, photographs of musical instruments; Dr. Alexander Agassiz, views of the great statues and other archaeological remains on Easter Island; Mr. H. R. Gardner, two Brazilian pottery water coolers; Mr. C. A. Thompson, photograph of bird stone from Michigan; Miss S. Minns, three Indian dolls and a horn spoon; Mr. C. Bangs, flint arrow points, knives, and chips from Snake river, Oregon, and chipped implement, stone celt, and worked antler from Wareham, Mass.; Mr. H. N. Rust, shell implements from San Miguel Island, Cal.; Dr. A. M. Tozzer, ceremonial jar and shell necklace of the Lacandon Indians, and grooved stone from western New York; Dr. W. McM. Woodworth, guitar from Senegambia, Africa, a Savage Island club, a small wooden bowl, a basket and two pillows from Fiji, mask from New Hebrides, firesticks from North Queensland, and berry pestle of the Tlingit Indians; Mr. E. R. Zalinski, metate and muller from Blue Bell mine, Arizona; Mr. George W. Hammond, a beautiful and rare old basket of the Mission Indians of Southern California, specimens of old Norse wood-carving, including a cabinet, beer cups, hames and saddle ornaments, effigies of human figures, etc., and a painted panel from the old Spanish Church at Pecos, N. M.; Miss Emily Spinney, a grooved stone hammer from Elliot, Maine; Mrs. F. W. Putnam, a woman's fur shoulder cape, probably northern California; Mr. Edward H. Thompson, six tally sticks used by Indians of Yucatan for recording their work; Dr. Hamilton Rice, a headband, blowgun, quiver and poisoned arrows, bow, paddles of different types, carrying-bag of native textile work, several necklaces, and a ceremonial drum of the Zaparo Indians, Napo river, Ecuador; Dr. W. L. Smith, 13 photographs of natives of New Guinea; Miss C. A. Benneson, a notched stone net-sinker from Lodi Point, New York; Mr. Thomas Anderson, an old fish net made of the inner bark of the willow by the Slave Indians, presented through Mr. Stefánsson; Mr. Owen Bryant, chipped knives, spear-points and arrow-points, polished slate points, polishing stones, celts and gouges, soapstone pots, a soapstone lamp, and other objects, from graves and village sites of the Beothuks on the shores and islands of Notre Dame Bay, Newfoundland.

In closing this fortieth report on the Museum, which covers the fiftieth anniversary of my coming to Harvard as a student in the Lawrence Scientific School, I beg the privilege of taking this opportunity of extending my sincere thanks to the several scientific institutions and societies, to the many friends, and to all my students and assistants, past and present, who united in sending to me their congratulations and kindly testimonials in recognition of my completion of fifty years of study and teaching. One of these testimonials may be appropriately mentioned here, since it is of special importance to the Museum, as well as most gratifying to me. The following letter refers to the generous gift of President Morris K. Jesup of the American Museum of Natural History in New York, where for nearly ten years, with the approval of the President and Fellows of

Harvard College, I was able to take an active part in the organization and development of the Department of Anthropology: —

"My dear Professor Putnam: —

"President Jesup feels that the American Museum ought to do something to recognize the fifty years that you have spent in scientific work at a sister institution, and I am therefore authorized to state, for him, that if you will commission Mr. Willoughby or some other representative to come to New York, at our expense, we will give him permission to select ethnological material sufficient to fully illustrate the life of the inhabitants of the Philippine Islands, leaving you to make such disposition of this collection as you may think best.

With the expressions of the most sincere personal regard,

I am ever,
Very truly yours,
(Signed) H. C. Bumpus, *Director.*"

A typical collection was selected by Mr. Willoughby from the great mass of material in the New York Museum and this was duly received. It was then my privilege and pleasure to present this valuable collection to the Peabody Museum.

F. W. PUTNAM,
Peabody Professor and Curator of the Museum.

THE SEMITIC MUSEUM.

To the President of the University: —

Sir, — Among the accessions during the year have been the following: —

1. *By gift.* — A small collection of modern Moslem objects, given by Miss Ellen Hammond; several antique seals and coins from Babylon and vicinity, given by Miss Alice Longfellow; a silver medal struck in commemoration of the 250th anniversary of the first settlement of Jews in the United States, given by the Executive Committee in charge of the celebration; ten Morocco coins from the reigning sultan and his predecessor, given by Mr. Reuben S. Cohen; and a detail of the Alhambra in plaster, given by Mrs. Elizabeth Y. Hayes.

2. *By purchase.* — A plaster copy of the Babylonian monument containing the code of laws promulgated by Hammurabi about 2250 B.C.; an inscribed clay cylinder of Nebuchadrezzar recording a temple restoration, and a number of other Babylonian tablets; a series of photographs taken in 1904–05 by Professor Nathaniel Schmidt during his tours on and around the Dead Sea; about 400 photographs of oriental objects in the British Museum; and, most important of all, 230 Arabic manuscripts.

The money given in 1899 for the purchase of additions to the collections being nearly exhausted, the founder of the Museum offered to duplicate any sum given by others up to $5000. The result was a contribution of $10,015 made by 83 persons. Much of this came from former donors, but the list of givers contains also many new names. This contribution is a gratifying evidence that the Museum continues to interest its old friends, and that it has at the same time the power to make new friends. At the average rate of expenditure for purchases, the sum contributed will meet our needs for two or three years. In connection with the subscription the Curator gave at the Museum three informal lectures on the collections and five lectures on the Hammurabi code of laws.

In the Palestinian Room there has been a re-arrangement of some of the specimens, and certain parts of Dr. Schick's models of the Temple not hitherto exhibited at the Museum have been placed on exhibition. The framed photographs have all been provided with printed labels.

The most important event of the year is the change in the constitution and scope of the committee appointed by the Board of Overseers to visit the Department. Hitherto this was a committee on Semitic Languages. It is now a committee on "The Semitic Museum and the Division of Semitic Languages and History," and consists of eight members, namely, the three who constituted the old committee (Messrs. Schiff, Straus, and Wigglesworth), and Messrs. William C. Loring, David A. Ellis, William C. Endicott, John W. Morss, and Henry W. Peabody, all of Boston.

As stated in the *Gazette* of March 16, 1906, the object of the changes in the committee is "to make it coördinate with other committees on museums, and also in order to increase in Boston and its vicinity the number of those who take special interest in the further development and the increased usefulness of the Museum." In April, 1906, the new members of the Committee and the teachers of the Department held an informal meeting at the Museum.

The committee in charge of the American School of Oriental Study and Research in Palestine having invited the Curator of the Museum to be the Director of that School for the year 1906–07, the President and Fellows have granted him leave of absence for that purpose. It is hoped that a year in Palestine may result in many accessions to the Museum.

DAVID G. LYON, *Curator.*

THE FOGG ART MUSEUM.

To the President of the University:—

Sir, — I have the honor to present the following report on the Fogg Art Museum for the year 1905–06:—

Our accessions are: A diptych by Rogier Van der Weyden, bequeathed by the late George W. Harris, Esq., of Boston; a Greek marble statue of Aesculapius, given by Dr. Rupert Norton, '88; a small Greek marble head of Zeus; a small picture in tempera, representing the Sacrifice of Cain and Abel, ascribed by Messrs. Crowe and Cavalcaselle to Raphael, but now thought to be by some other painter of the sixteenth century; an oil painting of St. Peter Martyr, ascribed to the Venetian painter Lorenzo Lotto; a drawing by Fra Bartolommeo; a drawing, perhaps by Sogliani, bearing the name of Timoteo Vite; a drawing of early Florentine character, ascribed to Masaccio; and an early water-color drawing by J. M. W. Turner, all deposited by Mr. Edward W. Forbes; and an ancient Greek bronze cista, deposited by Mr. James Loeb, '88. To the print collections have been added nine prints, constituting the so-called Round Passion, engraved by Lucas van Leyden, purchased out of the income of the Gray Fund at a cost of $656.10; a proof etching of Hornby Castle, of Turner's Richmondshire series, Crowhurst, a mezzotint engraving by Frank Short, after Turner's Liber plate of the same subject; The Deluge, a mezzotint engraving after Turner by J. P. Quilley, and St. Catherine's Hill, in the etched state, from Turner's Liber Studiorum — gifts from Mr. Francis Bullard, '88, of Boston.

To the collection of photographs 2,076 additions have been made. These comprise illustrations of the architecture, sculpture, and painting of Siena of various epochs, works found in the excavations of Delphi, and paintings, including many portraits, by early French artists.

To the collection of slides 67 additions have been made, illustrating Egyptian painting and sculpture, ancient Persian architecture and sculpture, Italian, French, English, and Spanish painting, Mediaeval architecture, and Modern English architecture.

To the Museum Library the following books have been added: By purchase from the income of the Searle Fund, Velasquez (1 vol.) and Michael Angelo (1 vol.), of the Klassiker der Kunst series;

Lippincott's Pronouncing Gazetteer of the World (new edition); Lippincott's Biographical Dictionary; Kristeller's Andrea Mantegna; Dimier, Le Portrait du XVIe Siècle au Primitifs Français; Marucchi, Il Museo Egizio Vaticano; A. de Vesme, Le Peintre-Graveur Italien; Rawlinson, Turner's Liber Studiorum (2d edition). By purchase from the income of the Randall Fund, Lafenestre and Richtenberger, Rome, vol. i, of the series La Peinture en Europe. By gift from H. Helbig, of Munich, Die Sammlung von Pannwitz — an illustrated catalogue; from Professor C. E. Norton, Three Keys to the Camera della Segnatura of the Vatican, by Eliza A. Starr; from Mr. Francis Bullard, Mr. Whistler's Lithographs, a catalogue by T. R. Way; from Miss Grace Norton, Stuart and Revett's Alterthümer zu Athen, lief. 28, pl. 7, 8, 9, 11, 12; and from the author, Dr. Edmund von Mach, '95, Outlines of the History of Painting.

The diptych attributed to Van der Weyden is a thoroughly fine example of Flemish painting in the fifteenth century, and is the first original work of this important class that has come to us. The picture is in tempera, on hard-wood panel, and is in perfect condition. It is a portrait of a gentleman kneeling in adoration before the Virgin and Child, with a Bishop in full canonicals standing behind him. The coloring has an almost Venetian quality, and the close elaboration of details is remarkable, even for Flemish work of the period.

The so-called Aesculapius is a characteristic example of later Greek sculpture in a good state of preservation, save for the forearms, which are modern restorations, and some abrasions on the feet. The small Greek marble head of Zeus is much injured in its surfaces, but some parts remain unhurt. The small painting which has been attributed to Raphael may well have been designed by that master, if not executed by him. It has characteristic qualities, and much beauty of workmanship, especially in the sky and background. The picture ascribed to Lorenzo Lotto is a finished example of later Venetian painting. The early Florentine drawings have the appearance of authenticity, and are valuable acquisitions. The water-color drawing by Turner exhibits a phase of his early work not shown in the other drawings of our collection, and is a useful addition to our synoptical series illustrating the development of Turner's genius; and the bronze cista is an unusually fine specimen of the class of objects to which it belongs, and has two small figures on the lid of considerable beauty.

Of the ancient bronze tripods sent us last year by Mr. James Loeb, and mentioned in my last report, two have been lent, at

Mr. Loeb's request, to the Metropolitan Museum of Art of New York. These tripods were received in many fragments, and they appear to have been found in that condition — the edges of the fragments being encrusted with patina, which would indicate that they must have been broken in antiquity. The work of assembling the pieces has been carried on steadily during the past year, at Mr. Loeb's expense, and although the objects are yet incomplete, enough has been done to show their general character, and their beauty of line and surface. The one remaining here will be placed on exhibition as soon as a suitable case can be prepared.

The very rare and beautiful collection of Aretine moulds and vase fragments, also sent us last year by Mr. Loeb, and referred to in my last report, has been classified and arranged by Dr. G. H. Chase, Curator of Classical Antiquities of the Department of the Classics, and Dr. Chase has prepared a monograph on them which will shortly be published.

The number of photographs catalogued during the year was 1,250 and the total number now catalogued is 35,144. The number of slides catalogued was 67. An Index to the plates of the work by Dehio and Bezold, Die Kirchliche Baukunst des Abendlandes, which have been mounted for the use of students, has been made. This Index combines into one the five partial indices, three of which existed in print, and two in manuscript, and includes some figures not before indexed. The number of photographs mounted was 1,683.

Photographs were lent 230 times to the Department of Architecture, the Harvard Union, to various members of the University, to the Social Union, and to various outsiders. Slides were lent 202 times to the Department of Architecture, to Radcliffe College, to the Boston Public Library, and to a few outsiders.

The number of visits to the photograph room, by persons using photographs for study, was 675. Of these, 506 were by members of Harvard University. The sum of $12.90 was received from the sale of catalogues and photographs.

In the Print Department, 9 prints (new accessions) of the Gray Collection, and 811 of the Randall Collection, were catalogued. The total number of prints of the Randall Collection now catalogued is 10,234. The number of prints mounted was 18. A list of line-engravings after Turner, for a catalogue of the exhibition of prints lent by Mr. Francis Bullard, to be mentioned below, was prepared; and considerable work has been done on a list of portraits in our own print collections.

The number of visits to the Print Department for the study of prints not shown in the exhibition cases was 334, of which 283 were by members of the University. The time consumed in showing prints was 206 hours.

Photographs have been mounted, and other mechanical work has been done, for the Department of Philosophy, Radcliffe College, and for several outsiders, for which the sum of $156.89 has been received.

During the winter a collection of line-engravings after Turner, lent by Mr. Francis Bullard, was placed on exhibition in the Print Room. This collection is still on view, and will remain so for some time longer. The prints are all exceptionally fine proofs, and many of them have been touched by Turner. During the year a much needed case, with a capacity for the storage of 5,000 photographs, was added to our equipment; but the accumulations of several years were such that this has been found to be inadequate, and we still have photographs, to the amount of several hundred, awaiting additional storage space.

The Department of the Classics having begun the formation of a collection of classical antiquities, and a curator of such objects having been appointed for this Department, the advantage of combining this collection with the classical collection of this Museum naturally suggests itself, and the idea is favored by both the Department of the Classics and that of the Fine Arts. The union of these two collections would appear desirable from all points of view, but chiefly from considerations of convenience of use and economy of administration. A collection of casts of ancient portraits of Julius Caesar, belonging to the Classical Department, is now deposited here for want of any other suitable place for its exhibition. But the collections of the Fogg Museum having already outgrown the space afforded by our present building, additions to the building, with well lighted galleries for the proper display of our important original works of art, are urgently needed. As I have said in a former report, plans for additions, which would give two properly lighted galleries, have been made, the estimated cost of which would be about $40,000 and $50,000 respectively. One of these galleries would provide for the combined Collections of Classical Antiquities, with room for considerable growth; and the other would accommodate our early Italian and other original paintings of great schools of the past.

CHARLES H. MOORE, *Director*

THE GERMANIC MUSEUM.

To the President of the University: —

Sir, — The progress of the Germanic Museum during the past year may be summed up in three facts: the beginning of collections for an Emperor William Fund, the publication of an illustrated Handbook of the Museum, and the announcement of an important gift from the King of Saxony.

The Emperor William Fund is intended to serve as a permanent endowment of the Museum. It was started last February, on the occasion of the silver wedding of the German Emperor and Empress, and is meant, apart from its ultimate purpose, as an expression of American recognition of the many tokens of international friendliness shown toward this country by the German government and people. The sum of $25,000 has thus far been raised, consisting of the following subscriptions: —

Alexander Agassiz, Cambridge	$1,000
James Barr Ames, Cambridge	500
Anonymous, New York	500
Anonymous, Boston	600
Anonymous, Boston	350
Mrs. Henry P. Bowditch, Boston	100
Adolphus Busch, St. Louis	2,000
Alvin Carl, Boston	10
Heinrich Conried, New York	500
W. Murray Crane, Dalton	500
Ellis L. Dresel, Boston	50
Charles Ehlermann, St. Louis	100
George Ehret, New York	500
Charles W. Eliot, Cambridge	100
Arthur F. Estabrook, Boston	500
Frederick P. Fish, Boston	1,000
Germanic Museum Association	350
Germanische Gesellschaft, Pittsburg	50
John Hays Hammond, New York	100
Mrs. J. H. Hecht, Boston	250
Paul Heine, Lancaster, Pa.	500
Hermann V. Hilprecht, Phila.	25
Otto H. Kahn, New York	5,000
Charles H. Keep, Washington	100
David P. Kimball, Boston	2,500
Antonio Knauth, New York	25
Mrs. Percival Knauth, New York	25
Knauth, Nachod & Kühne, New York	100
Hugo A. Koehler, St. Louis	25
Gardiner M. Lane, Boston	250
William Lawrence, Boston	100
Amount carried forward	$17,710
Amount brought forward	$17,710
E. D. Leavitt, Cambridge	10
Margaret A. Leavitt, Cambridge	10
George V. Leverett, Boston	200
T. K. Lothrop, Boston	200
Mrs. Natalie Nixdorff, Cambridge	25
Francis G. Peabody, Cambridge	100
Mrs. John C. Phillips, Boston	100
George Putnam, Boston	100
Henry W. Putnam, Boston	50
A. C. Ratshesky, Boston	50
Hugo Reisinger, New York	50
A. Lawrence Rotch, Boston	100
J. G. Rosengarten, Phila.	100
Edward Ruhl, Boston	25
Jacob H. Schiff, New York	1,000
Mortimer L. Schiff, New York	1,000
Carl Schurz, New York	50
Mrs. Gideon Scull, Boston	50
A. Shuman, Boston	100
Hermann Sielcken, New York	1,000
William Taussig, St. Louis	185
Augustus H. Vogel, Milwaukee	100
Felix M. Warburg, New York	1,000
Paul M. Warburg, New York	1,000
Mary L. Ware, Boston	50
Walter Wesselhoeft, Cambridge	50
Mrs. Walter Wesselhoeft, Cambridge	10
Robert W. Willson, Cambridge	50
Mrs. Anna Woerishoffer, New York	500
John M. Wulfing, St. Louis	25
Total	$25,000

A gratifying beginning has thus been made. But it is clear that in order to be of far reaching and effective service in the upbuilding of a great museum, truly representative of the history of German culture, an endowment fund of at least $100,000 should be raised, and I herewith repeat the earnest appeal of my former reports to all American friends of Germany to help in this worthy cause. That the Corporation of Harvard University is fully alive to the importance of this cause is shown by the establishment during this year of a professorship of the history of German culture. This professorship is intended to bring out the intimate interdependence of all manifestations of national culture — whether intellectual, literary or artistic — and illustrates the organic connection between the Germanic Museum and the literary and historical departments of the University.

Apart from the sums mentioned before, the Museum has received from Mr. Alexander Cochrane of Boston $500 for defraying current expenses.

The Handbook of the Museum referred to above contains a succinct description of the whole collection now installed. It brings out the striking fact that the Germanic Museum of Harvard University possesses a fuller and more systematically selected exhibit of casts of mediaeval German sculpture than exists at present in Germany itself. This fact has since been publicly recognized in Germany. A recent review of the Handbook in the *Berliner Tageblatt* says: "The feeling with which a connoisseur of our own museums peruses these pages is by no means that of condescension, but rather of envy. For not a single German city possesses a collection of reproductions of our plastic masterpieces which in scope or arrangement could be compared with this young institution. In most of our museums, for instance, we have only parts of such wonderful plastic achievements as the romanesque sculptures of Freiberg or Naumburg, and the student is forced to put them together piece by piece in his own imagination, whereas in Cambridge they are brought to view in their whole grouping and within their architectural framework. Thus this Germanic Museum in America is going to be of importance for Germany too; for something of this sort must be created here also." I fear that this statement is somewhat too flattering for us. For the great and incomparable Germanisches Museum at Nürnberg possesses in its collection of casts a good many important things which we do not have; and the additions now planned for the Royal Museum at Berlin will probably soon outstrip our exhibit. But it certainly is encouraging to hear such words of sympathy from the Fatherland; and I cannot forego mentioning that in the second edition of the

"Handbuch des Deutschtums im Auslande" (Berlin, Dietrich Reimer), which has just appeared, Professor Friedrich Paulsen has at the head of the section dealing with North America a most sympathetic article on our Germanic Museum in which he greets it as the most significant achievement of German educational activity in this country, and expresses the hope that it will soon come to be fully and in every respect what it is meant to be: an artistic symbol of the unity of the Germanic race.

That active support also continues to be bestowed upon the Museum from Germany is proven in a most gratifying manner by the recent communication received from the Ministry of the Royal House of Saxony, that His Majesty the King of Saxony has given to the Museum a reproduction of the Romanesque pulpit of the Church of Wechselburg, and that this gift is already on its way. This beautiful monument of thirteenth century North German sculpture is a worthy counterpart to the finest monuments which we owe to the German Emperor; and it is pleasant to think that two of the oldest German dynasties — together with the ancient Swiss Confederacy — will by these gifts be represented side by side on American soil.

Although the Museum during the last three years has been open only for two full days and two afternoons of each week, it was visited during that time by more than 75,000 persons.

The Germanic Museum Association has suffered during the year a great loss through the death of its honored President, Carl Schurz. Even to the last, Mr. Schurz exerted himself earnestly for the interests of the Association, and several of the contributions to the Emperor William Fund are due to his solicitation. The Association expressed to Mr. Schurz's family its deep sympathy with their bereavement, and was officially represented at the meeting recently held at New York to commemorate the career of this foremost American citizen of German birth. To fill the vacancy created by Mr. Schurz's death, the Association elected the following officers: President, Mr. Adolphus Busch of St. Louis; First Vice-President, Mr. Frederick P. Fish of Boston; Second Vice-President, Mr. Otto H. Kahn of New York. To the list of Honorary Vice-Presidents was added the Imperial German Ambassador at Washington, Baron Speck von Sternburg; and the Board of Directors was increased by the election to it of Mr. Antonio Knauth of New York. All these gentlemen accepted the offices to which they were elected.

The balance of money on hand in the treasury of the Association is $1,623.22, which includes two gifts received during the year: $8 from Mr. Charles J. Liebmann of New York and $50 from the

Deutsch-Englischer Schulverein of Boston. Mr. Heinrich Conried, an Honorary Vice-President of the Association, as in former years, gave this year also a benefit performance for the Museum. Of the proceeds of this performance, $500 were given to the Emperor William Fund; the balance of $103.81 was turned over to the Germanic Museum Association. The Association has ordered two important monuments of mediaeval German sculpture, namely, the colossal Crucifixion group of the Church of Wechselburg and the Bronze Gates of the Cathedral of Augsburg. Both monuments are expected within a few months.

It will not be easy to find good places in our present Museum building for these monuments and for the gift of the King of Saxony; but we hope to be able to install them at least in such a manner as to make possible a careful study of their details. So much, however, is clear: after these three large objects have been installed, there will not be any room left for further accessions of a similar kind, and the growth of the Museum will be blocked unless we obtain the means for a larger building. The need of such a building, then, has now become altogether imperative. For, as I have often stated, this Museum is to be not only a collection of mediaeval German sculpture, but of the history of Germanic culture, containing representative monuments of the Germanic past on English, Dutch, Scandinavian, Swiss, and Austrian soil as well as German. After all that has been done for this cause from the German side, is it not now time for Americans to see to it that the artistic monuments of the Germanic past, already in our possession or to be acquired, be worthily housed?

KUNO FRANCKE, *Curator.*

RADCLIFFE COLLEGE.

To the President of the University: —

Sir, — As Dean of Radcliffe College, I have the honor to submit my report for the academic year 1905–06.

The number of students in actual attendance during the year was 436, as against 416 during the preceding year.

Graduate Students	66
Seniors	47
Juniors	67
Sophomores	82
Freshmen	68
Special Students	106
Total	436

At Commencement in June, 1906, fifty-seven students, two of whom had completed their residence in an earlier year, received the degree of Bachelor of Arts. Eight students, who had not been registered as Seniors, received the degree. Of the fifty-seven successful candidates, one received the degree *summa cum laude;* eight received it *magna cum laude;* twenty, *cum laude.*

Twenty candidates received the degree of Master of Arts. Eleven of the twenty had taken their first degree at Radcliffe; the others represented the following colleges: Barnard College, University of Chicago, Elmira College, University of Indiana, Mt. Holyoke College, Smith College, University of Texas, Vassar College, University of Vermont.

The degree of Doctor of Philosophy was conferred upon two candidates: Lois Kimball Mathews, A.B. Leland Stanford Jr. University 1903, A.M. *ibid.* 1904; and Frances Hall Rousmaniere, A.B. Wellesley College 1900, A.M. *ibid.* 1904. Mrs. Mathews took her degree in the special field of History; her thesis was "A Study of the Spread of Population in the United States." Miss Rousmaniere took her degree in the special field of Logic; the subject of her thesis was "The Place of Experiment in Investigation."

The Caroline I. Wilby Prize for 1906 was awarded to Miss Rousmaniere for an essay on "Certainty and Attention," the outcome of original research undertaken in the Harvard Pyschological Laboratory.

Examinations for admission were held in June, 1906, in Cambridge, Andover, Belmont (Cal.), Brookline, Chicago (Ill.), Concord (N.H.), Fall River, Kansas City (Mo.), Lynn, Milton, Omaha (Neb.) Philadelphia (Pa.), Portland (Me.), Portland (Ore.), Quincy, Springfield, Washington (D.C.), Worcester, and Youngstown (O.). They were also held in September in Cambridge. Three hundred and four candidates presented themselves for examination. Thirteen were candidates for admission as Special Students; forty-two candidates took part of the examinations or worked off admission conditions; one hundred and fifty-four took the Preliminary Examinations, and ninety-three the Final Examinations; two were admitted by examination to the Sophomore Class.

The results of the Final Examinations are given in the following table: —

	Admitted.	Admitted "Clear."
June	79	24
September	14	1
Total	93	25

Ninety-three candidates were admitted as Freshmen in 1906, as against ninety-five in 1905. The entering class of 1906–07 numbers eighty-four, and is the largest in the history of Radcliffe.

Eighty-six Graduate Students registered during the year, thirty-nine of whom were from other colleges. Twenty-six students were admitted to fifteen full courses, and thirty-two students to nineteen half-courses, of the "Courses primarily for Graduates in Harvard University open to competent students of Radcliffe College."

The members of the Academic Board for 1905–06 were Professor Byerly (Chairman), and Professors E. L. Mark, S. M. Macvane, H. S. White, J. H. Wright, E. H. Hall, H. W. Smyth, G. L. Kittredge, and C. H. Grandgent.

The vacancies in the Council made by the resignation of Professor Clement L. Smith, Mrs. Farlow, and Miss Longfellow were filled at the February meeting of the Associates by the election of Frederick Pickering Cabot (A.B. Harvard 1890), Mary Coes (A.M. Radcliffe 1897), and Frances Parkman (Mrs. Henry Parkman). At the same meeting Mrs. Mary Lowell Barton, Esther Fisher Hallowell (A.B. 1902), John Forbes Perkins (A.B. Harvard 1899), and James Hardy Ropes (A.B. Harvard 1889), were elected members of the Associates, each for the term of three years from February 26, 1906. In October, 1905, Caroline Louise Humphrey (A.B. 1898) was elected Alumnae Associate for the term of three years from 1905.

At the February meeting, Mr. Henry L. Higginson's resignation from the Associates was presented and reluctantly accepted. Another name has been stricken from the list of Associates. Professor James Mills Peirce was one of the earliest and most loyal supporters and advisers of the "Harvard Annex": it was a great honor to Radcliffe that he deemed it worthy of his friendship and counsel to the day of his death.

The sum of $75,000 for "new endowment" for the Library, needed to secure Mr. Andrew Carnegie's gift of $75,000 for a building, has been raised, and a Library adapted to the special needs of Radcliffe will soon be ours. The question of site was extremely important; the working needs and the architectural effect, what we should have to-day, and what we may require to-morrow, these points, each and all, demanded careful consideration and the advice of an expert. Through the kindness of Mr. Arthur T. Lyman, the College employed Mr. A. A. Shurtleff to study the grounds in the neighborhood of Fay House, the Greenleaf estate included, and to indicate the best site for the Library and every other possible site. In Mr. Shurtleff's opinion, the Library should complete the group of which Agassiz House is the centre and the Gymnasium the left wing; of this group the Library would be the right wing, and it should, in its general features, correspond to the Gymnasium, in accordance with the plan suggested by Mr. McKim when the Gymnasium was built. In mass and dimensions, the Gymnasium would lend itself admirably to a college library, where provision must be made for a large number of readers and a comparatively small number of books. For the books rarely needed, and only by the advanced student, Radcliffe will continue to depend, with a grateful sense of privilege, on the great treasure-house of the Harvard Library.

The plans have been entrusted to Winslow and Bigelow, of Boston. It is believed that the work can be executed without interfering in any way with the present Library, and it is expected that the building will be ready in time for the opening of the College year in September, 1907. It is hoped that the fine window in Agassiz House which was Mrs. Whitman's last work, and which is a memorial of her life and genius, may find a fitting place specially designed for it in the new Library.

To the majority of the Radcliffe students, past and present, the Library was the first need of the College. To some of them, however, who are active members of the Radcliffe Auxiliary, a second dormitory seemed the first necessity, and a year ago a Committee of the Auxiliary was appointed to consider the question of dormitories. This Committee, consisting of Mr. Frederick P. Cabot, Mrs. Philip Cabot, and Miss Amy Lowell, brought before the Council, at its June meeting, an admirable report, accompanied by plans for a building, and by an extremely interesting scheme for "financing the building operation." Before any step to push the matter was taken, Mrs. David P. Kimball, the generous and constant friend of Radcliffe, offered to give the College a second hall of residence, and the scheme brought forward by the Auxiliary has been for the present postponed.

The new hall will stand on Shepard Street, on the site designated by Mr. Guy Lowell in the lay-out of the land. The plans have been entrusted to A. W. Longfellow, Jr., the architect of Bertram Hall and Agassiz House, and it is expected that the building will be ready for occupation in September, 1907. It will outwardly resemble Bertram Hall, Mrs. Kimball's first splendid gift, but it will accommodate a larger number of students, forty at least.

By the wish of the donor, and with the gracious permission of Mrs. Eliot, the hall will bear the name of Grace Hopkinson Eliot.

In June, an occasion of peculiar interest marked the presentation to Radcliffe of a Venetian fountain,— the gift of Mr. Henry L. Higginson "in happy memory of Josephine Shaw Lowell, the wife of Charles Russell Lowell."

The other gifts of the year have been $550 through Miss Caroline Matthews from students interested in education, the income to be at the disposition of Professor Paul H. Hanus, of the Department of Education; $250 from Mrs. Walter Channing and other friends, to defray the expense of a Course of Lectures on the Philosophy of the Kindergarten, given by Miss Laura Fisher.

The bequests have been: $10,000 under the will of Helen G. Coburn (Mrs. George W. Coburn), an unrestricted bequest; $10,000 under the will of Annie E. Bursley, subject to a life-interest, to establish a Fellowship in Modern Languages, to be known as "The Louisa Green Bursley Fellowship in Modern Languages"; under the will of Rebecca Greene (Mrs. Francis B. Greene), of Dartmouth, formerly of Boston, Radcliffe College is made one of the residuary legatees of her estate, and it is to receive $\frac{100}{260}$ (one hundred two hundred and sixtieths) of the residuary estate.

Radcliffe has purchased a small house and lot, 13 Appian Way, which is now in use as an office for the Superintendent. It has also come into possession of the two houses on Ash Street, which were part of the Greenleaf property, and on which an option until April, 1907, had been taken. The Treasurer was able to sell a piece of property, unproductive and taxed, which had been left to Radcliffe by Miss Parker, and to take up the option on the Ash Street houses, which are both rented to advantage.

Agassiz House was opened for daily use in September, 1905, and has now completed its first year. It has fully and amply served the purposes for which it was given; it has done more than any one expected and in more ways than any one imagined. This is not the place for details of its service; one item will suffice. During the college year, September, 1905,–June, 1906, 24,425 luncheons were provided, at an average expense of 11¼ cents each. It is true that the House adds to the running expenses of the College, but not so heavily as we had feared.

The new Library brings its endowment with it; the new Hall, properly managed, will be a source of income; for the other buildings which have been reckoned essential to the development of Radcliffe, a good building for academic purposes, for laboratories and for administration, — for these we can afford to wait. The prime need remains — a large fund for the improvement of the instruction. This is not the first time that the Dean has laid stress upon this vital need of the College. May it be the last!

AGNES IRWIN, *Dean.*

APPENDIX.

DEATHS.

[During the year beginning September 1, 1905.]

DWIGHT MOSES CLAPP, Clinical Lecturer on Operative Dentistry. September 19, 1906.

JAMES MILLS PEIRCE, Perkins Professor of Astronomy and Mathematics. March 21, 1906.

NATHANIEL SOUTHGATE SHALER, Professor of Geology, and Dean of the Lawrence Scientific School. April 10, 1906.

RESIGNATIONS.

[To take effect September 1, 1906, unless otherwise stated.]

GEORGE LORIMER BAKER, Assistant in Bacteriology. October 22, 1906.

WINTHROP BELLAMY, Assistant in Chemistry. May 14, 1906.

HENRY PICKERING BOWDITCH, George Higginson Professor of Physiology, to take effect at the end of the current academic year. April 30, 1906.

HENRY COOK BOYNTON, Instructor in Metallurgy and Metallography. September 24, 1906.

WALTER REMSEN BRINCKERHOFF, Instructor in Pathology, to take effect March 1, 1906. March 13, 1906.

ARTHUR HOUSTON CHIVERS, Austin Teaching Fellow in Botany. October 22, 1906.

ALLEN DANFORTH, Comptroller, to take effect March 1, 1906. November 13, 1905.

CHARLES HENRY DERBY, Proctor, to take effect March 1, 1906. March 13, 1906.

FREDERIC LOUIS FISCHER, Secretary of the Faculty of Law. October 22, 1906.

ORVILLE GISH FRANTZ, Proctor. February 26, 1906.

JAMES AUGUSTUS GEORGE, Member of the Board of Examination Proctors. May 28, 1906.

EDWARD HALE, Assistant Professor of Homiletics. March 13, 1906.

JOHN GALENTINE HALL, Assistant in Botany. October 22, 1906.

EDMUND HERSEY, Instructor in Farming and Superintendent of the Bussey Farm. March 26, 1906.

ARTHUR NORMAN HOLCOMBE, Assistant in Government. October 22, 1906.

SILAS WILDER HOWLAND, Assistant in Economics. October 22, 1906.

Thomas Augustus Jaggar, Jr., Assistant Professor of Geology. June 26, 1906.

Francis Wayland Johnston, Austin Teaching Fellow in Economics. June 26, 1906.

Harrie Stuart Vedder Jones, Instructor in English. September 24, 1906.

John Samuel Kenyon, Assistant in English, to take effect March 1, 1906. June 11, 1906.

Elbridge Decosmos King, Instructor in Mechanical Dentistry. September 24, 1906.

Arthur Becket Lamb, Instructor in Chemistry. November 1, 1906.

Robert Adger Law, Instructor in English. September 24, 1906.

Francis Cabot Lowell, Permanent Secretary of the Corporation, to take effect December 11, 1905. January 8, 1906.

Albert Morton Lythgoe, Assistant Professor of Egyptology. September 24, 1906.

Sylvanus Griswold Morley, Instructor in Romance Languages. September 24, 1906.

James Atkins Noyes, Editor of the Quinquennial Catalogue, to take effect October 28, 1905. September 26, 1905.

Arthur Sperry Pearse, Member of the Board of Examination Proctors, to take effect March 1, 1906. March 13, 1906.

James Mills Peirce, Perkins Professor of Astronomy and Mathematics, to take effect March 1, 1907. March 13, 1906.

Lincoln Ware Riddle, Member of the Board of Examination Proctors. May 28, 1906.

Lincoln Ware Riddle, Austin Teaching Fellow in Botany. October 8, 1906.

Arthur William Ryder, Instructor in Indic Philology and in German, to take effect January 1, 1906. December 11, 1905.

Stuart Pratt Sherman, Instructor in English. June 26, 1906.

Arthur Asahel Shurtleff, Instructor in Landscape Architecture, to take effect April 23, 1906. December 27, 1905.

Stanley Arthur Starratt, Austin Teaching Fellow in Geology, to take effect November 18, 1905. November 27, 1905.

Wilfred Harlow Starratt, Instructor in Operative Dentistry. September 24, 1906.

Vilhjálmur Stefánsson, Member of the Board of Examination Proctors. May 28, 1906.

Elmer Edgar Stoll, Instructor in English. September 24, 1906.

George Nicolas Terzieff, Assistant in Chemistry, to take effect March 26, 1906. March 26, 1906.

Henry Smith Thompson, Secretary for Appointments, to take effect July 1, 1906. September 24, 1906.

Alfred Marston Tozzer, Member of the Board of Examination Proctors. May 28, 1906.

Ernest de Wolfe Wales, Assistant in Otology. June 26, 1906.

George Lincoln Walton, Clinical Instructor in Diseases of the Nervous System. June 26, 1906.

Jens Iverson Westengard, Assistant Professor of Law, to take effect March 1, 1906. March 13, 1906.

Homer Edwards Woodbridge, Instructor in English. September 24, 1906.

APPOINTMENTS.

FACULTY OF ARTS AND SCIENCES.

[*Without limit of time, or for more than one year.*]

Comfort Avery Adams, Professor of Electrical Engineering from September 1, 1906. January 29, 1906.

William Elwood Byerly, Perkins Professor of Mathematics from September 1, 1906. May 14, 1906.

Austin Cary, Assistant Professor of Forestry for five years from September 1, 1905. October 2, 1905.

George Henry Chase, Assistant Professor of Classical Archaeology for five years from September 1, 1906. January 29, 1906.

Frederick Shepherd Converse, Assistant Professor of Music for five years from September 1, 1905. September 26, 1905.

Roland Burrage Dixon, Assistant Professor of Anthropology for five years from September 1, 1906. April 10, 1906.

Merritt Lyndon Fernald, Assistant Professor of Botany for five years from September 1, 1905. October 9, 1905.

Richard Thornton Fisher, Assistant Professor of Forestry for five years from September 1, 1905. October 2, 1905.

Kuno Francke, Professor of the History of German Culture from September 1, 1905. January 29, 1906.

Edwin Francis Gay, Professor of Economics from September 1, 1906. April 30, 1906.

Edward Locke Gookin, Assistant in the Library from September 1, 1905. November 13, 1905.

Chester Noyes Greenough, Instructor in English from September 1, 1906. May 7, 1906.

Byron Satterlee Hurlbut, Professor of English from September 1, 1906. April 10, 1906.

Douglas Wilson Johnson, Assistant Professor of Physiography for five years from September 1, 1906. May 14, 1906.

Lewis Jerome Johnson, Professor of Civil Engineering from September 1, 1906. March 26, 1906.

James Lee Love, Assistant Professor of Mathematics for five years from September 1, 1906. April 30, 1906.

Albert Morton Lythgoe, Assistant Professor of Egyptology for five years from September 1, 1905. November 13, 1905.

William Bennett Munro, Assistant Professor of Government for five years from September 1, 1906. March 26, 1906.

William Allan Neilson, Professor of English from September 1, 1906. November 27, 1905.

Arthur Edwin Norton, Instructor in Mechanical Drawing and Descriptive Geometry from September 1, 1906. April 30, 1906.

George Howard Parker, Professor of Zoölogy from September 1, 1906. May 14, 1906.

Bliss Perry, Professor of English Literature from March 1, 1907. January 29, 1906.

HERBERT WILBUR RAND, Instructor in Zoölogy from September 1, 1906. April 10, 1906.

CHARLES ALBERT READ, Assistant in the Library from September 1, 1905. November 13, 1905.

GEORGE ANDREW REISNER, Assistant Professor of Semitic Archaeology for five years from September 1, 1905. November 13, 1905.

FRED NORRIS ROBINSON, Professor of English from September 1, 1906. February 12, 1906.

ALBERT SAUVEUR, Professor of Metallurgy and Metallography from September 1, 1906. April 10, 1906.

WILLIAM HENRY SCHOFIELD, Professor of Comparative Literature from September 1, 1906. February 12, 1906.

JAMES KELSEY WHITTEMORE, Assistant Professor of Mathematics for five years from September 1, 1906. April 30, 1906.

LEO WIENER, Assistant Professor of Slavic Languages and Literatures for five years from September 1, 1906. April 10, 1906.

JAY BACKUS WOODWORTH, Assistant Professor of Geology for five years from September 1, 1906. April 10, 1906.

ROBERT MEARNS YERKES, Instructor in Psychology from September 1, 1905. June 5, 1905. Title changed to Instructor in Comparative Psychology, September 26, 1905.

[*For 1905–06.*]

WILLIAM MORTON BARROWS, Austin Teaching Fellow in Geology from November 18, 1905, for the remainder of the current academic year. November 27, 1905.

JOSEPH TORREY BISHOP, Assistant in History. October 9, 1905.

JOHN HAMILTON BLAIR, Assistant in History. October 9, 1905.

ARTHUR CLARENCE BOYLSTON, Assistant in Chemistry. October 9, 1905.

CARL MILTON BREWSTER, Assistant in Chemistry. October 9, 1905.

LAURIE LORNE BURGESS, Assistant in Chemistry for the remainder of the current academic year. March 26, 1906.

DANIEL ALLEN CLARKE, Instructor in Forest Botany for the first half-year. October 2, 1905.

MORRIS RAPHAEL COHEN, Assistant in Philosophy. October 9, 1905.

SIDNEY CURTIS, Assistant in English. October 30, 1905.

HARVEY NATHANIEL DAVIS, Instructor in Mathematics. October 9, 1905.

HAROLD SIMPSON DEMING, Instructor in Public Speaking. September 26, 1905.

WILLIAM MORTON DEY, Austin Teaching Fellow in Romance Languages. October 2, 1905.

HARRY NELSON EATON, Assistant in Geology. October 2, 1905.

EMERSON DAVID FITE, Austin Teaching Fellow in Government. October 9, 1905.

GEORGE SHANNON FORBES, Lecturer on Physical Chemistry. October 2, 1905.

EDMUND CARL FROEHLICH, Instructor in Mathematics. October 9, 1905.

CHARLES EDMUND FRYER, Assistant in History. October 9, 1905.

JOHN GLANVILLE GILL, Instructor in Romance Languages. October 2, 1905.

JULIUS GOEBEL, Lecturer on Germanic Philology. September 26, 1905.

ARTHUR BROOKS GREEN, Assistant in Engineering. October 30, 1905.

William Vincent Green, Assistant in Chemistry. October 9, 1905.

Ernst Hermann Paul Grossmann, Instructor in German. October 30, 1905.

Binney Gunnison, Instructor in Public Speaking. October 2, 1905.

Richmond Laurin Hawkins, Instructor in Romance Languages. October 2, 1905.

Ralph Chipman Hawley, Instructor in Forestry. October 2, 1905.

Henry Harrison Haynes, Instructor in Semitic Languages. September 26, 1905.

Frank Wilson Cheney Hersey, Instructor in English. October 30, 1905.

Lewis Dana Hill, Assistant in Physics. October 9, 1905.

John L Hogg, Instructor in Mathematics. October 30, 1905.

John L Hogg, Assistant in Astronomy. October 30, 1905.

Walter Chapin Holmes, Assistant in Chemistry. October 9, 1905.

Alexander Edward Hoyle, Assistant in Architecture. September 26, 1905.

Henry Vincent Hubbard, Instructor in Landscape Architecture from April 23, 1906, for the remainder of the current academic year. January 29, 1906.

John George Jack, Instructor in Forest Botany for the second half-year. October 2, 1905.

Richard Fay Jackson, Assistant in Chemistry. October 9, 1905.

Ralph Revere Kent, Assistant in Geology. October 9, 1905.

Raymond Warren Kent, Assistant in Chemistry. November 6, 1905.

Burritt Samuel Lacy, Assistant in Chemistry. October 9, 1905.

Chester Arthur Legg, Assistant in Economics. September 26, 1905.

Chester Arthur Legg, Assistant in History. October 9, 1905.

Ray Madding McConnell, Assistant in Philosophy. October 30, 1905.

Charles Sturtevant Moore, Assistant in Education. October 30, 1905.

Edward Mueller, Assistant in Chemistry. October 9, 1905.

Francis Emmet Neagle, Assistant in Government. October 9, 1905.

Friedrich Wilhelm Ostwald, Visiting Professor of Physical Chemistry for the first half-year. September 26, 1905.

Friedrich Wilhelm Ostwald, Ingersoll Lecturer on the Immortality of Man. October 30, 1905.

Harold Otis, Assistant in Economics. October 9, 1905.

Edgar Oscar Parker, Assistant in Drawing. November 13, 1905.

Charles Jackson Payne, Assistant in Astronomy. October 30, 1905.

Chandler Rathfon Post, Assistant in English. October 2, 1905.

William Hyde Price, Assistant in Economics. October 30, 1905.

Charles Freeman Rowley, Assistant in Economics. October 9, 1905.

Edwin James Saunders, Assistant in Meteorology and Physiography. October 2, 1905.

Carl Ludwig Schrader, Instructor in Gymnastics. September 26, 1905.

Edgar Raymond Shepard, Assistant in Physics. October 9, 1905.

Alexander Guy Holborn Spiers, Austin Teaching Fellow in Romance Languages. October 2, 1905.

Arthur Staehler, Visiting Assistant in Chemistry. September 26, 1905.

Albert Morey Sturtevant, Instructor in German. October 30, 1905.

George Nicolas Terzieff, Assistant in Chemistry. October 9, 1905.

Thomas Head Thomas, Assistant in Fine Arts. October 30, 1905.

Roland Greene Usher, Assistant in History. October 9, 1905.
William Hultz Walker, Lecturer on Industrial Chemistry. November 13, 1905.
Samuel Alfred Welldon, Assistant in English. October 30, 1905.
Robert Maximilian Ottomar Wernaer, Assistant in German. October 30, 1905.
Laurence Haines Whitney, Assistant in Chemistry. October 9, 1905.
Joaquin Enrique Zanetti, Assistant in Chemistry. October 9, 1905.

[*For 1906–07.*]

John Mead Adams, Assistant in Physics. April 30, 1906.
Harold Fred Albee, Assistant in Mechanical Drawing. April 30, 1906.
Louis Allard, Instructor in French. April 10, 1906.
Oakes Ames, Instructor in Botany. April 30, 1906.
Leonard Alexander Andrus, Assistant in Hydraulics. May 7, 1906.
Newton Samuel Bacon, Assistant in Hygiene. April 10, 1906.
Arthur Mangun Banta, Austin Teaching Fellow in Zoölogy. April 10, 1906.
Henri Baulig, Instructor in French. April 10, 1906.
Cornelius Beard, Assistant in Mechanical Drawing. May 7, 1906.
Winthrop Bellamy, Assistant in Chemistry. April 10, 1906.
Charles Scott Berry, Assistant in Philosophy. June 11, 1906.
Albert Wilhelm Boesche, Instructor in German. May 28, 1906.
Arthur Clarence Boylston, Austin Teaching Fellow in Chemistry. April 10, 1906.
Henry Cook Boynton, Instructor in Metallurgy and Metallography. April 30, 1906.
Fletcher Briggs, Instructor in German. May 28, 1906.
Alphonse Brun, Instructor in French. April 10, 1906.
Morley Albert Caldwell, Assistant in Philosophy. June 11, 1906.
Burton Howard Camp, Instructor in Mechanics. April 30, 1906.
Paul Whittier Carleton, Assistant in Chemistry. May 14, 1906.
Earnest Cary, Instructor in Greek. April 10, 1906.
William Richard Castle, Jr., Instructor in English. June 11, 1906.
Fred Wayne Catlett, Assistant in Government. April 30, 1906.
Harold Canning Chapin, Assistant in Chemistry. April 10, 1906.
Arthur Houston Chivers, Austin Teaching Fellow in Botany. April 30, 1906.
Mintin Asbury Chrysler, Instructor and Assistant in Botany. April 30, 1906.
Latham Clarke, Instructor in Chemistry. April 10, 1906.
William Morse Cole, Instructor in the Principles of Accounting. April 10, 1906.
William Arnold Colwell, Instructor in German. May 28, 1906.
Edgar Davidson Congdon, Austin Teaching Fellow in Zoölogy. April 10, 1906.
Charles Allerton Coolidge, Lecturer on Architectural Design. April 10, 1906.
Shirley Robbins Crosse, Assistant in Electrical Engineering. May 7, 1906.
Sidney Curtis, Assistant in English. June 11, 1906.

STUART DAGGETT, Instructor in Economics. April 10, 1906.

LEONARD DARWIN, Lecturer on Municipal Ownership and Public Service Industries. June 11, 1906.

HARVEY NATHANIEL DAVIS, Instructor in Mathematics and in Physics. April 30, 1906.

FRANK MILES DAY, Lecturer on Architectural Design. April 10, 1906.

ARTHUR STONE DEWING, Assistant in Philosophy. June 11, 1906.

WILLIAM BELL DINSMOOR, Assistant in Fine Arts. April 10, 1906.

CHARLES FLETCHER DOLE, Ingersoll Lecturer on the Immortality of Man. May 28, 1906.

HORATIO WILLIS DRESSER, Assistant in Philosophy. June 11, 1906.

WALTER CHALONER DURFEE, Austin Teaching Fellow in Engineering. April 30, 1906.

JULIUS WOOSTER EGGLESTON, Assistant in Geology. April 10, 1906.

LOUVILLE EUGENE EMERSON, Assistant in Philosophy. June 11, 1906.

CALVIN OLIN ESTERLY, Assistant in Zoölogy. April 30, 1906.

WILLIAM CURTIS FARABEE, Instructor in Anthropology. April 10, 1906.

FRANK ALBERT FETTER, Lecturer on Economics. April 30, 1906.

JAMES ALFRED FIELD, Instructor in Economics. April 10, 1906.

FRANCIS GLEASON FITZPATRICK, Assistant in Fine Arts. April 10, 1906.

HARRY PHIDIAS FORTÉ, Austin Teaching Fellow in Applied Mechanics and Hydraulics. April 30, 1906.

HARRY LOUIS FREVERT, Austin Teaching Fellow in Chemistry. April 10, 1906.

BENJAMIN APTHORP GOULD FULLER, Assistant in Philosophy. June 11, 1906.

HAROLD DE WOLF FULLER, Instructor in Comparative Literature. April 30, 1906.

ANDREW GARBUTT, Instructor in Modelling. April 10, 1906.

ALDEN PINUS GILSON, Assistant in Mechanical Engineering. April 30, 1906.

JULIUS GOEBEL, Lecturer on Germanic Philology. May 28, 1906.

HOWARD LEVI GRAY, Austin Teaching Fellow in History. April 30, 1906.

JOHN GALENTINE HALL, Assistant in Botany. April 30, 1906.

THOMAS HALL, Instructor in English. May 7, 1906.

LYMAN SAWIN HAPGOOD, Assistant in Hygiene. April 10, 1906.

RICHMOND LAURIN HAWKINS, Instructor in Romance Languages. April 10, 1906.

HENRY HARRISON HAYNES, Instructor in Semitic Languages. April 30, 1906.

WILLIAM CLIFFORD HEILMAN, Instructor in Music. April 10, 1906.

LAWRENCE JOSEPH HENDERSON, Instructor in Biological Chemistry. April 10, 1906.

FRANK WILSON CHENEY HERSEY, Instructor in English. June 11, 1906.

LEWIS DANA HILL, Assistant in Physics. April 30, 1906.

ARTHUR NORMAN HOLCOMBE, Assistant in Government. April 30, 1906.

SILAS WILDER HOWLAND, Assistant in Economics. April 10, 1906.

HENRY VINCENT HUBBARD, Instructor in Landscape Architecture. April 10, 1906.

ARTHUR MERLE HURLIN, Assistant in Music. April 10, 1906.

CHARLES PHILLIPS HUSE, Assistant in Economics. April 10, 1906.

PERCY ADAMS HUTCHISON, Instructor in English. June 11, 1906.

JOHN GEORGE JACK, Instructor in Forest Botany. June 26, 1906.

arl Newell Jackson, Instructor in Greek. April 10, 1906.

ouglas Wilson Johnson, Lecturer on Physiography. April 10, 1906.

rancis Wayland Johnston, Austin Teaching Fellow in Economics. April 10, 1906.

obert Matteson Johnston, Lecturer on History. May 7, 1906.

rinnell Jones, Austin Teaching Fellow in Chemistry. May 14, 1906.

arrie Stuart Vedder Jones, Instructor in English. June 11, 1906.

red Robert Jouett, Assistant in Hygiene. April 10, 1906.

erman Brunswick Kipper, Austin Teaching Fellow in Chemistry. April 10, 1906.

ugen Kühnemann, Visiting Professor of German Literature. March 26, 1906.

rthur Becket Lamb, Instructor in Chemistry. April 10, 1906.

obert Adger Law, Instructor in English. June 11, 1906.

hester Arthur Legg, Assistant in Economics. April 10, 1906.

hester Brooks Lewis, Assistant in Descriptive Geometry. April 30, 1906.

eorge Randall Lewis, Austin Teaching Fellow in Economics. April 10, 1906.

rederick William Charles Lieder, Instructor in German. May 28, 1906.

eorge Luther Lincoln, Austin Teaching Fellow in Romance Languages. April 10, 1906.

illiam Edward Lunt, Assistant in Government. April 30, 1906.

ay Madding McConnell, Assistant in Social Ethics. April 10, 1906.

eorge Albert McKay, Assistant in Mechanical Drawing. April 30, 1906.

enton MacKaye, Instructor in Forestry. June 26, 1906.

eorge Rogers Mansfield, Instructor in Geology. June 26, 1906.

dward Russell Markham, Instructor in Shopwork. April 30, 1906.

elden Osgood Martin, Austin Teaching Fellow in Economics. April 10, 1906.

oseph Benson Marvin, Austin Teaching Fellow in Mining and Metallurgy. April 30, 1906.

rank Richardson Mason, Austin Teaching Fellow in Economics. April 10, 1906.

erbert Eugene Merwin, Assistant in Physiography. June 11, 1906.

ared Sparks Moore, Assistant in Philosophy. June 11, 1906.

ylvanus Griswold Morley, Instructor in Romance Languages. April 10, 1906.

illiam Alfred Morris, Assistant in History. April 30, 1906.

rthur Holmes Morse, Instructor in Mechanical Engineering. April 30, 1906.

artin Mower, Instructor in Fine Arts. April 10, 1906.

erman Dudley Murphy, Instructor in Drawing from the Life. April 10, 1906.

rancis Emmet Neagle, Assistant in Government. April 30, 1906.

harles Eliot Nichols, Assistant in Mechanics. April 30, 1906.

harles Read Nutter, Instructor in English. June 11, 1906.

rederic Austin Ogg, Austin Teaching Fellow in History. April 30, 1906.

dmund Morley Parker, Lecturer on Comparative Administration. April 30, 1906.

dgar Oscar Parker, Assistant in Drawing. April 10, 1906.

Charles Peabody, Instructor in European Archaeology. April 10, 1906.

Arthur Stanley Pease, Instructor in Greek and Latin. April 10, 1906.

Arthur Pope, Instructor in Fine Arts. April 10, 1906.

Chandler Rathfon Post, Instructor in English. June 11, 1906.

Cyrus Guernsey Pringle, Botanical Collector. June 26, 1906.

Paul Hector Provandie, Assistant in Hygiene. April 10, 1906.

Conyers Read, Assistant in History. April 30, 1906.

Sidney Armor Reeve, Lecturer on Mechanical Engineering. May 7, 1906.

William Chauncey Rice, Assistant in Government. April 30, 1906.

Ralph Webster Richards, Assistant in Mineralogy. April 10, 1906.

Lincoln Ware Riddle, Austin Teaching Fellow in Botany. April 30, 1906.

David Camp Rogers, Instructor in Social Ethics. April 10, 1906.

Charles Freeman Rowley, Assistant in Economics. April 10, 1906.

Arthur Truman Safford, Instructor in Hydraulics. April 30, 1906.

Eugene Mitchell Sawyer, Austin Teaching Fellow in Mining and Metallurgy. April 30, 1906.

Frederic Hayward Sawyer, Assistant in Geology. April 10, 1906.

Carl Ludwig Schrader, Instructor in Gymnastics. April 30, 1906.

Schuyler B Serviss, Assistant in Physics. April 30, 1906.

Arthur Bliss Seymour, Assistant in the Cryptogamic Herbarium. April 30, 1906.

Elmer Irwin Shepard, Instructor in Mathematics. April 30, 1906.

Stuart Pratt Sherman, Instructor in English. June 11, 1906.

Harold Vincent Skene, Assistant in Architecture. April 10, 1906.

Alexander Guy Holborn Spiers, Austin Teaching Fellow in Romance Languages. April 10, 1906.

Herbert Joseph Spinden, Assistant in Anthropology. April 10, 1906.

Charles Miner Stearns, Instructor in English. June 11, 1906.

Morton Collins Stewart, Austin Teaching Fellow in German. May 28, 1906.

Elmer Edgar Stoll, Instructor in English. June 11, 1906.

Harry Wilton Sturges, Assistant in Electrical Engineering. May 7, 1906.

Richard Clipston Sturgis, Lecturer on Architectural Design. April 10, 1906.

Albert Morey Sturtevant, Instructor in German. May 28, 1906.

Alfred Marston Tozzer, Instructor in Central American Archaeology. April 10, 1906.

William Hultz Walker, Lecturer on Industrial Chemistry. April 30, 1906.

Harold Broadfield Warren, Instructor in Freehand Drawing. April 10, 1906.

Kenneth Grant Tremayne Webster, Instructor in English. May 7, 1906.

Edmund March Wheelwright, Lecturer on Architectural Design. April 10, 1906.

Edwin Ellis White, Assistant in Mining and Metallurgy. April 30, 1906.

Ernest Hatch Wilkins, Instructor in Italian. April 30, 1906.

Homer Edwards Woodbridge, Instructor in English. June 11, 1906.

MEMBERS OF THE ADMINISTRATIVE BOARD OF HARVARD COLLEGE.

[*September 26, 1905.*]

John Hays Gardiner.
Charles Burton Gulick.
John Goddard Hart.
Byron Satterlee Hurlbut, *Dean.*
Theodore Lyman.
Charles Pomeroy Parker.
Robert DeCourcy Ward.
Edgar Huidekoper Wells.
Robert Wheeler Willson.

RESIDENT EXECUTIVE BOARD.

[*June 26, 1906.*]

Charles William Eliot, *President.*
Howard Lane Blackwell.
Charles Frank Mason.
Walter Safford Burke.
Jerome Davis Greene, *Secretary.*
Edgar Huidekoper Wells.
Charles Miner Stearns.

MEMBERS OF THE ADMINISTRATIVE BOARD OF THE LAWRENCE SCIENTIFIC SCHOOL.

[*For 1905–06.*]

September 26, 1905.

William Ernest Castle.
Eugene Abraham Darling.
John Goddard Hart.
Ira Nelson Hollis.
Edward Vermilye Huntington.
Edward Charles Jeffrey.
Arthur Edwin Kennelly.
James Lee Love.
Arthur Orlo Norton.
George Washington Pierce.
Charles Robert Sanger.
Nathaniel Southgate Shaler, *Dean.*
Henry Lloyd Smyth.
Herbert Langford Warren.
Charles Henry White.

[*For 1906–07.*]

June 26, 1906.

William Ernest Castle.
Richard Thornton Fisher.
Ira Nelson Hollis.
Edward Vermilye Huntington.
Frank Lowell Kennedy.
Arthur Edwin Kennelly.
Arthur Orlo Norton.
Herbert Langford Warren.
Charles Henry White.

MEMBERS OF THE ADMINISTRATIVE BOARD OF THE GRADUATE SCHOOL OF ARTS AND SCIENCES.

[*September 26, 1905.*]

Maxime Bôcher.
Thomas Nixon Carver.
William Morris Davis.
George Lyman Kittredge.
Edward Laurens Mark.
George Foot Moore.
Hugo Münsterberg.
Wallace Clement Sabine.
Herbert Weir Smyth.
John Henry Wright, *Dean.*

PROCTORS.

[*For 1905–06.*]

Herbert Spencer Allen. October 2, 1905.
Adelbert Ames. October 2, 1905.
Arthur Atwood Ballantine. October 2, 1905.
Howard Lane Blackwell. October 2, 1905.
Herman LaRue Brown. October 2, 1905.
Harvey Nathaniel Davis. October 2, 1905.
Augustine Derby. October 2, 1905.
Charles Henry Derby. October 2, 1905.
Louville Eugene Emerson. October 30, 1905.
Roger Ernst. October 2, 1905.
Whitcomb Field. October 2, 1905.
Herman Arthur Fischer. October 2, 1905.
Frederick Montague Foster. January 1, 1906, for the remainder of the current academic year. January 8, 1906.
Orville Gish Frantz. October 2, 1905.
John Sayward Galbraith. October 2, 1905.
Donald Gregg. October 2, 1905.
Roger Castle Griffin. October 2, 1905.
Richard Mott Gummere. October 2, 1905.
Fitch Harrison Haskell. October 2, 1905.
Silas Wilder Howland. October 2, 1905.
Richard Inglis. October 2, 1905.
Malcolm Hyde Ivy. October 2, 1905.
John Francis Jennings. October 2, 1905.
Harold Pendexter Johnson. November 27, 1905.
Robert Peebles Kernan. October 2, 1905.
Ross Watt Lynn. October 2, 1905.
Robert Magrane, for the remainder of the current academic year. February 26, 1906.
Horace Mann. October 2, 1905.
Clement Ross Duncan Meier. October 2, 1905.
Francis Joseph O'Connor. October 2, 1905.
Peter Butler Olney, Jr. October 2, 1905.
Harold Otis. October 2, 1905.
Raymond Hansen Oveson. October 2, 1905.
James Horace Patten. October 2, 1905.
Chandler Rathfon Post. October 30, 1905.
Conyers Read. October 2, 1905.
Eugene Mitchell Sawyer. October 2, 1905.
John Ellis Sedman. October 2, 1905.
Kendall Kerfoot Smith. October 2, 1905.
Alexander Guy Holborn Spiers. October 2, 1905.
Vilhjálmur Stefánsson. October 2, 1905.
Howard Stockton. October 2, 1905.
Edward Augustine Taft. October 2, 1905.
Robert Palfrey Utter. October 2, 1905.

Harrison Briggs Webster. October 2, 1905.
Samuel Alfred Welldon. October 2, 1905.
Kennard Winsor. October 2, 1905.
Karl Young. October 2, 1905.

[*For 1906–07.*]

Abbot Peterson, Proctor of Divinity Hall. June 11, 1906.

MEMBERS OF THE BOARD OF EXAMINATION PROCTORS.

October 30, 1905.

Frederick Arthur Alden.
James Robert Barclay.
Winthrop Bellamy.
Fletcher Briggs.
William Arnold Colwell.
Stuart Daggett.
Emerson David Fite.
Charles Edmund Fryer.
James Augustus George.
Lucius Dwight Granger.
Howard Levi Gray.
Roger Castle Griffin.
Richmond Laurin Hawkins.
Henry Craig Jones.
Chester Arthur Legg.
Frederick William Charles Lieder.
Joseph Abraham Long.
Norman Shaw McKendrick.
Arthur Patch McKinlay.
George Rogers Mansfield.
Selden Osgood Martin.
Charles Read Nutter.
Arthur Sperry Pearse.
Lincoln Ware Riddle.
Schuyler B Serviss.
Vilhjálmur Stefánsson.
Alfred Marston Tozzer.
Roland Greene Usher.
Arthur Fisher Whittem.
Chester Whitney Wright.

DIVINITY SCHOOL.

[*For 1906–07.*]

John Winthrop Platner, Lecturer on Ecclesiastical History. May 7, 1906.

LAW SCHOOL.

[*For 1905–06.*]

Charles Frederick Dutch, Instructor in Admiralty for the second half-year. January 29, 1906.

Samuel Hudson Hollis, Instructor in Property for the second half-year. January 29, 1906.

Charles James Hughes, Jr., Lecturer on the Law of Mining and Irrigation. November 6, 1905.

[*For 1906–07.*]

Allan Reuben Campbell, Lecturer on New York Practice. May 14, 1906.

Paul Vinogradoff, Lecturer on Comparative Ancient Law. June 11, 1906.

MEDICAL SCHOOL.

[*Without limit of time, or for more than one year.*]

CARL LUCAS ALSBERG, Instructor in Biological Chemistry for three years from September 1, 1906. June 26, 1906.

JOHN BAPST BLAKE, Instructor in Surgery for three years from September 1, 1906. June 26, 1906.

JOHN LEWIS BREMER, Demonstrator of Histology for three years from September 1, 1906. May 14, 1906.

RICHARD CLARKE CABOT, Instructor in Clinical Medicine for three years from September 1, 1906. June 26, 1906.

ALGERNON COOLIDGE, Jr., Assistant Professor of Laryngology for five years from September 1, 1906. May 14, 1906.

ELBRIDGE GERRY CUTLER, Instructor in the Theory and Practice of Physic for three years from September 1, 1906. June 26, 1906.

CHARLES HARRINGTON, Professor of Hygiene from September 1, 1906. February 12, 1906.

HENRY JACKSON, Instructor in Clinical Medicine for three years from September 1, 1906. June 26, 1906.

ELLIOTT PROCTOR JOSLIN, Instructor in the Theory and Practice of Physic for three years from September 1, 1906. June 26, 1906.

FREDERIC THOMAS LEWIS, Assistant Professor of Embryology for five years from September 1, 1906. May 14, 1906.

HOWARD AUGUSTUS LOTHROP, Instructor in Surgery for three years from September 1, 1906. June 26, 1906.

CHARLES SEDGWICK MINOT, James Stillman Professor of Comparative Anatomy from September 1, 1905. January 8, 1906.

JOHN LOVETT MORSE, Assistant Professor of Pediatrics for five years from September 1, 1906. May 7, 1906.

JAMES GREGORY MUMFORD, Instructor in Surgery for three years from September 1, 1906. June 26, 1906.

CHARLES ALLEN PORTER, Instructor in Surgery for three years from September 1, 1906. June 26, 1906.

GEORGE GRAY SEARS, Assistant Professor of Clinical Medicine for five years from September 1, 1906. May 7, 1906.

ELMER ERNEST SOUTHARD, Assistant Professor of Neuropathology for five years from September 1, 1906. May 7, 1906.

EDWARD WYLLYS TAYLOR, Instructor in Neurology for three years from September 1, 1906. June 26, 1906.

HERMAN FRANK VICKERY, Instructor in Clinical Medicine for three years from September 1, 1906. June 26, 1906.

JAMES HOMER WRIGHT, Instructor in Pathology for three years from September 1, 1906. June 26, 1906.

[*For 1905–06.*]

HORACE BINNEY, Assistant in Anatomy. October 9, 1905.

WILLIAM LELAND HOLT, Austin Teaching Fellow in Comparative Pathology. October 9, 1905.

HARRY CHAMBERLAIN LOW, Assistant in Pathology. October 9, 1905.

George Burgess Magrath, Assistant in Hygiene. December 11, 1905.

Alexander Rocke Robertson, Assistant in Pathology from April 1, 1906, for the remainder of the current academic year. April 10, 1906.

Fred Wilbur Thyng, Austin Teaching Fellow in Histology and Embryology. October 9, 1905.

Ernest Edward Tyzzer, Assistant in Pathology. December 11, 1905.

George Louis Vogel, Assistant in Laryngology from March 1, 1906, for the remainder of the current academic year. March 13, 1906.

Simeon Burt Wolbach, Assistant in Pathology. October 9, 1905.

Simeon Burt Wolbach, Instructor in Pathology from March 1, 1906, for the remainder of the current academic year. April 10, 1906.

Arthur Morton Worthington, Assistant in Bacteriology. October 9, 1905.

[*For 1906–07.*]

John Auer, Instructor in Physiology. June 26, 1906.

George Sherwin Clarke Badger, Assistant in the Theory and Practice of Physic. June 11, 1906.

George Lorimer Baker, Assistant in Bacteriology. June 11, 1906.

Franklin Greene Balch, Assistant in Surgery. June 11, 1906.

John Washburn Bartol, Assistant in Clinical Medicine. June 11, 1906.

Horace Binney, Assistant in Anatomy. June 11, 1906.

Otis Fisher Black, Assistant in Biological Chemistry. June 11, 1906.

Elliott Gray Brackett, Instructor in Orthopedics. June 11, 1906.

George Washington Wales Brewster, Assistant in Surgery. June 11, 1906.

Frederick Stanford Burns, Assistant in Dermatology. June 11, 1906.

Charles Shorey Butler, Assistant in Anatomy. June 11, 1906.

David Cheever, Assistant in Anatomy. June 11, 1906.

Henry Asbury Christian, Instructor in the Theory and Practice of Physic. June 11, 1906.

Edmund Wright Clap, Assistant in Ophthalmology. June 11, 1906.

Joseph Payson Clark, Assistant in Laryngology. June 11, 1906.

Frederic Codman Cobb, Instructor in Laryngology. June 11, 1906.

Ernest Amory Codman, Assistant in Surgery. June 11, 1906.

Rockwell Augustus Coffin, Assistant in Laryngology. June 11, 1906.

Edward Cowles, Instructor in Mental Diseases. June 11, 1906.

George Arthur Craigin, Clinical Instructor in Pediatrics. June 11, 1906.

LeRoi Goddard Crandon, Assistant in Surgery. June 11, 1906.

Eugene Anthony Crockett, Instructor in Otology. June 11, 1906.

John Dane, Instructor in Orthopedics. June 11, 1906.

Lincoln Davis, Instructor in Anatomy. June 11, 1906.

Francis Parkman Denny, Assistant in Clinical Medicine. June 11, 1906.

Charles Hunter Dunn, Assistant in Pediatrics. June 11, 1906.

Samuel Holmes Durgin, Lecturer on Hygiene. June 11, 1906.

Eugene Ellsworth Everett, Assistant in Bacteriology. June 11, 1906.

William Edward Faulkner, Assistant in Surgery. June 11, 1906.

Elisha Flagg, Assistant in Anatomy. June 11, 1906.

Leo Victor Friedman, Assistant in Obstetrics. June 11, 1906.

Langdon Frothingham, Austin Teaching Fellow in Bacteriology. June 11, 1906.

George Washington Gay, Lecturer on Surgery. June 11, 1906.
Joel Ernest Goldthwait, Instructor in Orthopedics. June 11, 1906.
Joseph Lincoln Goodale, Assistant in Laryngology. June 11, 1906.
William Phillips Graves, Assistant in Gynaecology. June 11, 1906.
Charles Montraville Green, Secretary of the Faculty of Medicine. June 11, 1906.
Robert Battey Greenough, Instructor in Surgery. June 11, 1906.
Philip Hammond, Instructor in Otology. June 11, 1906.
Francis Bishop Harrington, Lecturer on Surgery. June 11, 1906.
Henry Hill Haskell, Assistant in Ophthalmology. June 11, 1906.
Lawrence Joseph Henderson, Instructor in Biological Chemistry. June 11, 1906.
Henry Fox Hewes, Instructor in the Clinical Laboratory. June 11, 1906.
Edwin Everett Jack, Instructor in Ophthalmology. June 11, 1906.
James Marsh Jackson, Assistant in Clinical Medicine. June 11, 1906.
Pierre Janet, Lecturer on the Major Symptoms of Hysteria. June 11, 1906.
Daniel Fiske Jones, Assistant in Surgery. June 11, 1906.
Philip Coombs Knapp, Clinical Instructor in Diseases of the Nervous System. June 11, 1906.
Maynard Ladd, Instructor in Pediatrics. June 11, 1906.
Walter Augustus Lecompte, Assistant in Otology. June 11, 1906.
Paul Adin Lewis, Austin Teaching Fellow in Comparative Pathology. June 11, 1906.
Edwin Allen Locke, Assistant in Clinical Medicine. June 11, 1906.
Frederick Taylor Lord, Assistant in Clinical Medicine. June 11, 1906.
Robert Williamson Lovett, Instructor in Orthopedics. June 11, 1906.
Fred Bates Lund, Assistant in Surgery. June 11, 1906.
Francis Henry McCrudden, Assistant in Biological Chemistry. June 11, 1906.
George Burgess Magrath, Assistant in Hygiene. June 11, 1906.
Henry Orlando Marcy, Jr., Assistant in Anatomy. June 11, 1906.
Ernest Gale Martin, Instructor in Physiology. June 11, 1906.
Samuel Jason Mixter, Lecturer on Surgery. June 11, 1906.
George Howard Monks, Lecturer on Surgery. June 11, 1906.
Harris Peyton Mosher, Assistant in Anatomy. June 11, 1906.
Harris Peyton Mosher, Assistant in Laryngology. June 11, 1906.
Franklin Spilman Newell, Instructor in Obstetrics and Gynaecology. June 11, 1906.
William Noyes, Clinical Instructor in Mental Diseases. June 11, 1906.
Calvin Gates Page, Assistant in Bacteriology. June 11, 1906.
Francis Winslow Palfrey, Assistant in Bacteriology. June 11, 1906.
Henry Joseph Perry, Assistant in Bacteriology. June 11, 1906.
Abner Post, Instructor in Syphilis. June 11, 1906.
Joseph Hersey Pratt, Assistant in the Theory and Practice of Physic. June 11, 1906.
Alexander Quackenboss, Instructor in Ophthalmology. June 11, 1906.
Frank Linden Richardson, Austin Teaching Fellow in Surgery. June 11, 1906.
Alexander Rocke Robertson, Assistant in Pathology. June 11, 1906.
William Henry Robey, Jr., Assistant in Clinical Medicine. June 11, 1906.

Samuel Robinson, Assistant in Anatomy. June 11, 1906.
David Daniel Scannell, Assistant in Anatomy. June 11, 1906.
Luther Dimmick Shepard, Jr., Instructor in Histology. June 11, 1906.
Channing Chamberlain Simmons, Assistant in Surgery. June 11, 1906.
Charles Morton Smith, Assistant in Syphilis. June 11, 1906.
William Henry Smith, Assistant in Clinical Medicine. June 11, 1906.
Fred Maurice Spalding, Assistant in Ophthalmology. June 11, 1906.
Arthur Kingsbury Stone, Assistant in the Theory and Practice of Physic. June 11, 1906.
James Savage Stone, Assistant in Surgery. June 11, 1906.
Malcolm Storer, Assistant in Gynaecology. June 11, 1906.
Howard Townsend Swain, Assistant in Obstetrics. June 11, 1906.
Robert James Terry, Teaching Fellow in Histology. May 7, 1906.
Ezra Ripley Thayer, Lecturer on the Relation of the Medical Profession to the Law and the Courts. June 11, 1906.
Paul Thorndike, Instructor in Genito-Urinary Surgery. June 11, 1906.
Fred Wilbur Thyng, Austin Teaching Fellow in Histology and Embryology. June 11, 1906.
Wilder Tileston, Assistant in Clinical Medicine. June 26, 1906.
James Rockwell Torbert, Assistant in Obstetrics. June 11, 1906.
Harvey Parker Towle, Assistant in Dermatology. June 11, 1906.
George Thomas Tuttle, Clinical Instructor in Mental Diseases. June 11, 1906.
Maurice Vejux Tyrode, Instructor in Pharmacology. June 11, 1906.
Ernest Edward Tyzzer, Assistant in Pathology. June 11, 1906.
Richard Goodwin Wadsworth, Assistant in Anatomy. June 11, 1906.
Ernest de Wolfe Wales, Assistant in Otology. June 11, 1906.
George Lincoln Walton, Clinical Instructor in Diseases of the Nervous System. June 11, 1906.
George Arthur Waterman, Assistant in Neurology. June 11, 1906.
Francis Sedgwick Watson, Lecturer on Genito-Urinary Surgery. June 11, 1906.
Charles James White, Instructor in Dermatology. June 11, 1906.
Franklin Warren White, Assistant in the Theory and Practice of Physic. June 11, 1906.
Simeon Burt Wolbach, Instructor in Pathology. June 11, 1906.
Arthur Morton Worthington, Assistant in Bacteriology. June 11, 1906.
Ernest Boyen Young, Assistant in Gynaecology. June 11, 1906.

MEMBERS OF THE ADMINISTRATIVE BOARD OF THE MEDICAL SCHOOL.

[*For 1905–06.*]

September 26, 1905.

William Lambert Richardson, *Dean.*

Walter Bradford Cannon.
Charles Montraville Green.
Charles Harrington.
Frank Burr Mallory.
Frederick Cheever Shattuck.
John Warren.
John Collins Warren.
William Fiske Whitney.

DENTAL SCHOOL.

[*Without limit of time, or for more than one year.*]

William Parker Cooke, Assistant Professor of Mechanical Dentistry for five years from September 1, 1905. October 30, 1905.

[*For 1905–06.*]

Benjamin Howard Codman, Instructor in Mechanical Dentistry. October 9, 1905.

James Bernard Crofwell, Instructor in Mechanical Dentistry. October 9, 1905.

Horace Amos Davis, Instructor in Mechanical Dentistry. October 9, 1905.

Martin Bassett Dill, Instructor in Mechanical Dentistry. October 9, 1905.

Wilson Case Dort, Instructor in Mechanical Dentistry. October 9, 1905.

Harry West Haley, Instructor in Mechanical Dentistry. October 9, 1905.

Herbert Frank Langley, Instructor in Mechanical Dentistry. October 9, 1905.

Robert Tucker Moffatt, Instructor in Mechanical Dentistry. October 9, 1905.

Charles Gilman Pike, Instructor in Operative Dentistry. November 6, 1905.

Henry Carlton Smith, Austin Teaching Fellow in Dental Chemistry. October 9, 1905.

[*For 1906–07.*]

Edwin Carter Blaisdell, Instructor in Operative Dentistry. June 11, 1906.

John Bapst Blake, Instructor in Surgery. June 11, 1906.

Ernest Howard Chute, Instructor in Mechanical Dentistry. June 11, 1906.

Dwight Moses Clapp, Clinical Lecturer on Operative Dentistry. June 11, 1906.

Harry Sylvester Clark, Instructor in Mechanical Dentistry. June 11, 1906.

Harold DeWitt Cross, Demonstrator of Mechanical Dentistry. June 11, 1906.

Horace Amos Davis, Instructor in Mechanical Dentistry. June 11, 1906.

Martin Bassett Dill, Instructor in Mechanical Dentistry. June 11, 1906.

Wilson Case Dort, Instructor in Mechanical Dentistry. June 11, 1906.

Frank LeRoy Eames, Instructor in Mechanical Dentistry. June 11, 1906.

Arthur Warren Eldred, Instructor in Mechanical Dentistry. June 11, 1906.

Samuel Tuttle Elliott, Instructor in Operative Dentistry. June 11, 1906.

John Wesley Estabrooks, Instructor in Mechanical Dentistry. June 11, 1906.

Edwin Linwood Farrington, Instructor in Extracting and Anaesthesia. June 11, 1906.

James Austin Furfey, Instructor in Operative Dentistry. June 11, 1906.

Amos Irving Hadley, Instructor in Mechanical Dentistry. June 11, 1906.

Harry West Haley, Instructor in Mechanical Dentistry. June 11, 1906.

Elbridge Decosmos King, Instructor in Mechanical Dentistry. June 11, 1906.

Herbert Frank Langley, Instructor in Mechanical Dentistry. June 11, 1906.

Marquis D Littig, Instructor in Operative Dentistry. June 11, 1906.

Elmer Joseph Marston, Instructor in Extracting and Anaesthesia. June 11, 1906.

Leroy Matthew Simpson Miner, Instructor in Extracting and Anaesthesia. June 11, 1906.

George Howard Monks, Lecturer on Surgery. June 11, 1906.

James Joseph O'Brien, Instructor in Extracting and Anaesthesia. June 11, 1906.

Joseph Totten Paul, Instructor in Operative Dentistry. June 11, 1906.

Charles Gilman Pike, Instructor in Operative Dentistry. June 11, 1906.

Norman Greene Reoch, Instructor in Orthodontia. June 11, 1906.

Melville Forrest Rogers, Instructor in Operative Dentistry. June 11, 1906.

Harry Benjamin Shuman, Instructor in Oral Surgery. June 11, 1906.

William Daniel Squarebrigs, Instructor in Extracting and Anaesthesia. June 11, 1906.

Wilfred Harlow Starratt, Instructor in Operative Dentistry. June 11, 1906.

Arthur Henry Stoddard, Clinical Lecturer on Mechanical Dentistry. June 11, 1906.

Edward Wyllys Taylor, Instructor in Neurology. June 11, 1906.

William Harry Weston, Instructor in Mechanical Dentistry. June 11, 1906.

Robert Whitehill, Instructor in Operative Dentistry. June 11, 1906.

Eugene Barry Wyman, Demonstrator of Operative Dentistry. June 11, 1906.

MEMBERS OF THE ADMINISTRATIVE BOARD OF THE DENTAL SCHOOL.

[*For 1905–06.*]

September 26, 1906.

Waldo Elias Boardman.
Charles Albert Brackett.
Edward Cornelius Briggs.
Dwight Moses Clapp.
William Parker Cooke.
Harold DeWitt Cross.
William Henry Potter.
Eugene Hanes Smith, *Dean.*

BUSSEY INSTITUTION.

[*Without limit of time, or for more than one year.*]

Albert Edward Shedd, Instructor in Farming from September 1, 1906. March 26, 1906.

[*For 1906–07.*]

Daniel Allen Clarke, Instructor in Botany. April 30, 1906.

Frank Thompson Dillingham, Instructor in Agricultural Chemistry. April 30, 1906.

Clifton Harlan Paige, Instructor in Mathematics and Surveying. April 30, 1906.

John Hamilton Robinette, Instructor in Agriculture. April 30, 1906.

OTHER APPOINTMENTS.

[*Without limit of time, or for more than one year.*]

Howard Lane Blackwell, Comptroller from March 1, 1906. February 12, 1906.

George Henry Chase, Curator of Classical Antiquities from September 1, 1905. November 13, 1905.

William Morris Davis, Acting Dean of the Graduate School of Arts and Sciences from July 1, 1906, to September 1, 1907. May 7, 1906.

Jerome Davis Greene, Member of the Faculty of Arts and Sciences from September 1, 1905. December 11, 1905.

Jerome Davis Greene, Secretary to the Corporation from September 1, 1905. December 11, 1905.

Chester Noyes Greenough, Curator of American Literature in the College Library from September 1, 1905. November 27, 1905.

Augustus Hemenway, Member of the Faculty of the Peabody Museum. January 29, 1906.

Hugo Münsterberg, Director of the Psychological Laboratory from September 1, 1905. February 12, 1906.

George Howard Parker, Director of the Bermuda Biological Station for the Summer of 1905. June 27, 1905. Title changed to Acting Director, November 27, 1905.

George Andrew Reisner, Director of the Palestinian Expedition from September 1, 1905. November 13, 1905.

Edgar Huidekoper Wells, Member of the Faculty of Arts and Sciences from September 1, 1905. September 26, 1905.

[*For 1905–06.*]

William Green Hale, Auditor of the Randall Hall Association. October 30, 1905.

Arthur Holmes Morse, Instructor in Mechanical Engineering for the Summer of 1906. April 30, 1906.

[*For 1906–07.*]

Howard Keith Alden, Auditor of the Randall Hall Association. June 26, 1906.

George Foot Moore, Acting Curator of the Semitic Museum. June 26, 1906.

PREACHERS TO THE UNIVERSITY.

[*For 1905-06.*]

Thomas Augustus Jaggar. October 2, 1905.

[*For 1906-07.*]

June 11, 1906.

Lyman Abbott.
George Angier Gordon.
Samuel Atkins Eliot.
James Gore King McClure.
Henry Van Dyke.

COMMITTEE ON THE REGULATION OF ATHLETIC SPORTS.

[*Appointed June 11, 1906.*]

Faculty Members:	*Graduate Members:*
Roger Bigelow Merriman.	Norman Williams Bingham, Jr.
Edward Hall Nichols.	George Richmond Fearing, Jr.
Horatio Stevens White.	Robert Frederick Herrick.

TRUSTEES OF THE MUSEUM OF FINE ARTS.

November 27, 1905.

William Sturgis Bigelow.
Arthur Tracy Cabot.
John Templeman Coolidge, Jr.

REPORT OF THE COMMITTEE ON ADMISSION.

To the President of the University: —

Sir, — I have the honor to submit to you a report of the work of the Committee on Admission.

The Committee were established by vote of the Faculty January 16, 1906, to take the places, so far as the admission of undergraduates is concerned, of five committees which formerly performed the work for as many different categories of students. The Committee entered upon their work with the understanding that they were to administer the admission of students more equably than had been possible when the work was divided, that they were to simplify, as far as possible, methods of admission, and that they were to promote closer relations between the University and secondary schools.

Since January 20, 1906, the Committee have held seventy-nine* meetings, and besides discussing matters of general policy have considered 1,132 applications for admission, and 116 applications for transference of registration from one department to another.

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* Of this number 14 were held since the current academic year opened.

The applications for admission may be classified as follows: —

I. Applications for admission to the Freshman Class by examination.
II. Applications for admission with or without examination as Special Students.
III. Applications for admission from other colleges and scientific schools.

I. Applications for Admission to the Freshman Class by Examination.

The results of the admission examinations of final candidates were as follows: —

	For the degree of A.B.	For the degree of S.B.
Admitted without conditions	179	4
Admitted with conditions	331	62
Total number admitted as Freshmen	510	66
Admitted as Special Students	28	38
Refused admission	65	38
Candidates in June who intended to finish in September, but who did not reappear	37	26
Total number of Final Candidates examined	640	168

Examinations were also taken by 843 Preliminary candidates, who were divided as follows: —

Candidates for degree of A.B.	722
Candidates for degree of S.B.	121

In the following tables the candidates examined, both Final and Preliminary, are classified according to residence: —

North Atlantic Division:	
Maine	18
New Hampshire	31
Vermont	6
Massachusetts	966
Rhode Island	11
Connecticut	15
New York	236
New Jersey	33
Pennsylvania	70
	1386

South Atlantic Division:	
Delaware	5
Maryland	15
District of Columbia	13
Virginia	2
West Virginia	2
Georgia	2
	39

Western Division:	
Montana	1
Colorado	5
New Mexico	1
Arizona	1
Utah	1
Nevada	1
Washington	4
Oregon	5
California	18
	37

NORTH CENTRAL DIVISION:	
Ohio	51
Indiana	10
Illinois	36
Michigan	7
Wisconsin	9
Minnesota	9
Iowa	6
Missouri	16
North Dakota	2
South Dakota	1
Nebraska	3
Kansas	2
	152

FOREIGN:	
Canada	1
Cuba	1
England	2
Germany	2
India	2
Ireland	1
Italy	1
Mexico	1
Russia	1
Switzerland	1
	13

SOUTH CENTRAL DIVISION:	
Kentucky	3
Tennessee	4
Alabama	1
Mississippi	1
Louisiana	1
Texas	2
Arkansas	2
Oklahoma	1
	15

INSULAR TERRITORIES AND DEPENDENCIES:	
Hawaii	5
HOME UNKNOWN	4
Total	1651

In the following tables candidates who were actually admitted as candidates for the degree of A.B. in each of the last five years are classified according to the kind of schools they attended: —

	1902.	1903.	1904.	1905.	1906.
Number of Public Schools	101	89	87	72	80
Number of candidates	256	220	204	169	192
Number of Private Schools	45	45	48	33	44
Number of candidates	132	124	133	114	126
Number of Endowed Schools	32	27	26	30	29
Number of candidates	154	133	129	143	164
Percentage of candidates from various schools: —					
Public	47.23+	46.12+	43.77+	39.67+	39.83+
Private	24.35+	25.99+	28.54	26.76	26.14+
Endowed	28.41+	27.88+	27.68+	33.56+	34.02+

The figures below show the numbers of candidates for the degree of A.B. admitted without conditions in each of the last five years: —

1902.	1903.	1904.	1905.	1906.
241	234	247	224	179

The lower number of men admitted without conditions this year is probably the effect of the new rule that a student must pay three dollars for every examination taken to remove a condition. As conditions may be removed by College courses as well as by examination, men admitted with conditions in June who intended to continue in College the subjects in which they were conditioned naturally decided not to take in September examinations which cost three dollars each, since their conditions would be removed at the end of their Freshman year by their work in College courses. The number of men admitted with a condition in English would alone almost account for the whole difference between the figures for 1905 and 1906. As these men are required to take English A, and as English A removes a condition in English, they naturally decided not to take in September an examination which costs three dollars, and which is not necessary for the removal of their condition.

The following tables show in per cents. what proportion of the whole number of men admitted as Freshmen were conditioned in each prescribed study: —

Candidates for A.B.	
English	8.82
Greek or Latin	1.176
German or French	4.509
History	3.529
Algebra	4.31
Plane Geometry	17.45
Science	13.725

Candidates for S.B.	
English	1.515
German or French	18.18
German and French	1.515
History	21.21
Algebra	1.515
Plane Geometry	5.545
Solid Geometry	48.48
Science	7.575

The following tables show in per cents. what proportion of the whole number of men admitted as Freshmen were conditioned in elective studies counting from one to seven points: —

Candidates for A.B.	
One Point	44.31
Two "	38.039
Three "	13.33
Four "	11.76
Five "	4.31
Six "	2.745
Seven "	.196

Candidates for S.B.	
One Point	57.575
Two "	42.42
Three "	27.27
Four "	18.18
Five "	10.606
Six "	3.03

Of the candidates for the degree of A.B. admitted with conditions, 27.64+ per cent. were conditioned in two points of advanced work.

The next table gives the percentages of failure in subjects taken by reliminary candidates, *i. e.*, by candidates who were recommended by heir schools as prepared in those subjects: —

Elementary.	Number.	Failures.	Per cent.
English	361	204	56.51
Greek	298	20	6.71
Latin	559	181	32.38
German	306	114	37.25
French	538	160	29.74
History	530	146	27.55
Algebra	619	161	26.01
Plane Geometry . . .	346	134	38.73
Geometry	29	10	34.48
Physics	141	19	13.48
Chemistry	54	8	14.81
Geography	0	0	0.
Physiography	17	9	52.94
Anatomy	7	3	42.86
Harmony	3	1	33.33
Botany	7	1	14.29
Zoölogy	7	0	0.
Civil Government . . .	12	7	58.33
Economics	2	2	100.
Architectural Drawing	0	0	0.
Freehand	10	6	60.
Projections	11	5	45.45
Blacksmithing	17	5	29.41
Chipping	8	2	25.
Machine Work	2	0	0.
Woodworking	20	8	40.

Advanced.	Number.	Failures.	Per cent.
English (*b*)	19	15*	78.95
Greek	13	8	61.54
Latin	47	32	68.09
German	50	17	34.
French	106	38	35.85
History	13	8	61.54
Algebra	8	4	50.
Solid Geometry . . .	22	13	59.09
Logarithms	21	12	57.14
Astronomy	0	0	0.
Meteorology	23	3	13.04
Physics	1	1	100.
Counterpoint	0	0	0.

* 5 credited Elementary English.

The next tables give the percentages of failure in each subject for all candidates, both Preliminary and Final: —

JUNE, 1906.

Elementary.	Number.	Failures.	Per cent.
English	767	345	44.98
Greek	384	37	9.64
Latin	807	270	33.46
German	502	182	36.25
French	771	264	34.24
History	785	212	27.01
Algebra	866	245	28.29
Plane Geometry	701	293	41.80
Geometry	70	34	48.57
Physics	541	75	13.86
Chemistry	231	42	18.18
Geography	4	4	100.
Physiography	39	19	48.72
Anatomy	16	8	50.
Harmony	18	11	61.11
Botany	9	1	11.11
Zoölogy	11	0	0.
Civil Government	31	23	74.19
Economics	8	6	75.
Architectural Drawing	1	1	100.
Freehand	27	16	59.26
Projections	36	17	47.22
Blacksmithing	38	11	28.95
Chipping	24	4	16.67
Machine Work	28	13	46.43
Woodworking	43	11	25.58

Advanced.	Number.	Failures.	Per cent.
English (*b*)	215	118*	54.88
Greek	240	34	14.17
Latin	495	276	55.76
German	238	114	47.90
French	451	176	39.02
History	70	36	51.43
Algebra	79	29	36.71
Solid Geometry	170	100	58.82
Logarithms	155	64	41.29
Astronomy	3	2	66.67
Meteorology	35	3	8.57
Physics	7	3	42.86
Counterpoint	1	0	0.

* 43 credited Elementary English.

SEPTEMBER, 1906.

Elementary.	Number.	Failures.	Per cent.
English	227	72	31.72
Greek	40	7	17.50
Latin	189	79	41.80
German	123	87	70.73
French	186	64	34.41
History	179	71	39.66
Algebra	195	47	24.10
Plane Geometry	199	88	44.22
Geometry	20	8	40.
Physics	77	36	46.75
Chemistry	42	14	33.33
Geography	5	5	100.
Physiography	17	16	94.12
Anatomy	5	2	40.
Harmony	5	1	20.
Botany	2	0	0.
Zoölogy	3	1	33.33
Civil Government	32	19	59.38
Economics	12	11	91.67
Architectural Drawing	0	0	0.
Freehand	15	7	46.67
Projections	24	6	25.
Blacksmithing	10	2	20.
Chipping	7	2	28.57
Machine Work	11	2	18.18
Woodworking	7	1	14.29

Advanced.	Number.	Failures.	Per cent.
English (*b*)	48	24*	50.
Greek	25	9	36.
Latin	158	87	54.06
German	84	54	64.29
French	137	71	51.83
History	62	35	56.45
Algebra	41	15	36.59
Solid Geometry	57	43	75.44
Logarithms	43	16	37.21
Astronomy	0	0	0.
Meteorology	5	2	40.
Physics	1	1	100.
Counterpoint	0	0	0.

The figures given above suggest that the requirements for admission are not well adjusted to the work of secondary schools. In the Dean of the Faculty's report for 1901–02, the Dean stated that his experience in the College Office had led him to believe that the method of examinations for admission — then but recently adopted — was not as good as the Faculty meant it to be. Everyone who has had much to do with the admission requirements since that time must be aware that dissatisfaction with the requirements has been constantly increasing. Within the past year, two associations of head-masters have protested against the requirements, and have pointed out what they consider specific defects. On the other hand, it is interesting to note that seventy-six schools this year sent two hundred and one candidates prepared in more than the required number of subjects, and that of these one hundred and twenty-six entered without conditions and credited with extra subjects.

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* 16 credited Elementary English.

II. Special Students.

The Committee have considered in all one hundred and ninety-six cases of admission of Special Students. These cases may be classified as follows: —

1. Men who have no intention of ever becoming candidates for a degree, and who petitioned for admission without examination, basing their petitions on general maturity or special aptitudes.
2. Men who were unable to satisfy all the conditions of matriculation, and who for various reasons asked permission to register as Special Students pending full matriculation.

Of the first class the Committee admitted fifty-eight, and rejected thirty-one.

None of these applicants were admitted directly from any other institutions of learning. Most of them had not attended school or college for several years. Their classification according to ages is as follows: —

43	1	28	4	22	8
41	1	27	4	21	6
33	3	26	1	20	6
31	1	25	1	19	4
30	2	24	3	18	1
29	1	23	9		

Of the second class the Committee admitted seventy-nine, and rejected twenty-eight.

These cases were the most troublesome cases with which the Committee dealt. In dealing with them, the Committee did not feel that their hands were entirely free. Before they took office an announcement had been made that under certain conditions men would be allowed to register as Special Students in the Lawrence Scientific School if they passed examinations counting thirteen points. This traditional policy the new Committee thought it desirable to discontinue for the sake of all concerned — the University, the schools, and the young men who were thereby encouraged to enter College before they were properly prepared. Nevertheless, the Committee felt that in certain cases legitimate expectations had been created which should be fulfilled. None were admitted, however, without specific recommendations from those who knew them best as students; and almost all were admitted "on trial," that is, with the understanding that their privileges might be withdrawn without further warning if at any time they proved to be unworthy of them. Their classification, according to the degrees for which they ultimately wish to be candidates, is as follows: —

Prospective candidates for A.B.	37
Prospective candidates for S.B.	42

The Committee regret that the number of Special Students of the first class is not larger. It is a matter of surprise and regret that teachers, professional men, and men engaged in business which allows them some little leisure, do not oftener seek to profit by the resources of the University.

III. Admission from Other Colleges and Scientific Schools.

Applications for admission to Harvard	175
Applications for admission to Radcliffe	19
Total number of cases considered	194
Number of colleges represented	97

Of the applicants for admission to Harvard, the Committee admitted one hundred and sixty-six, and rejected nine.

The following tables show the number of men who actually entered Harvard from other colleges and scientific schools in 1905 and 1906: —

	1905.	1906.
HARVARD COLLEGE.		
Seniors	5	7
Juniors	10	9
Sophomores	23	42
Freshmen	0	8
Special Students to be re-rated at the end of their first year or earlier	19	27
LAWRENCE SCIENTIFIC SCHOOL.		
Fourth Year	0	3
Third "	5	3
Second "	9	3
First "	6	1
Special Students	17	0
	94	103

The category of Special Students in the table above is made up either of men who applied for admission from other colleges with which the

Committee were unacquainted, or of men about whose rating the Committee were uncertain. Such cases are reconsidered as soon as the men have Harvard records which show their quality as students.

The Committee also transferred to classes in Harvard College sixteen Special Students and one hundred students in the Lawrence Scientific School. The large number of students transferred from the Scientific School to the College is due to the establishment of the new degree of S.B. in Harvard College. These cases were often unusually perplexing because they involved a consideration not only of the relation of a "programme" to an elective course of study, but also of the relation of work done in another institution to the Harvard requirements.

The Committee have much at heart the improvement of the quality of the work offered for admission, and the establishment of closer relations between the University and secondary schools. Among the means which they have already taken to secure the first are the collection of school records, and an extension of the policy commended by the Dean of Harvard College in his last annual report, namely, that of determining admission in June not only by number of points, but also by grades. The Committee also adopted last June, for the first time, the practice of distinguishing between men with high records and men with low records among those admitted by admitting the latter "on trial" or "on probation."

These methods, adopted with the hope that they would have the effect of improving the quality of the work offered for admission, have also helped to secure the second end above mentioned — the establishment of closer relations with secondary schools. The schools have most cordially welcomed the Committee's attempt to coöperate with them in securing good work. There are also three other ways in which closer relations with schools have been promoted — by the adoption of the examinations of the College Entrance Examination Board, by the abolition of restrictions on preliminary examinations, and by the establishment of a Committee of the Board of Overseers on the Relation of the University to Secondary Schools.

During the last year our relations with the College Entrance Examination Board, of which Harvard has been a member since 1904, became for the first time serviceable. It was possible last June for a candidate to enter Harvard by Board examinations alone. Though the announcement of the plan by which Board examinations might be substituted for Harvard examinations was not made until March 1, ninety-nine candidates took Board examinations — thirty-three Final candidates and sixty-six Preliminary candidates. These candidates represented fifty-seven schools, only seventeen of which are in New England. From thirteen of these schools no student has entered Harvard during the last ten years. These Board examinations reach much farther than we can ever hope to reach with our own. Last June they were held in one hundred and forty places, whereas the Harvard examinations were held in only fifty-one. By means of them we shall undoubtedly establish relations with many new schools.

In the circular dated March 1, in which the Committee announced the plan according to which Board examinations would be accepted as substitutes for corresponding Harvard examinations, they also announced certain changes in the rules governing examinations. The announcement was as follows: —

> Hereafter, candidates who, at any time before their preparation is complete, wish to take examinations in subjects in which they are ready for examination may, with the approval of their schools, offer themselves either in June or in September for examination in any subjects or subject in which they present a certificate of preparation. Consequently, the old rules, (1) that candidates may not divide their examinations except between two years, and (2) that candidates failing in June may not be reëxamined in September in the same subjects, are abolished.
>
> Hereafter, preliminary candidates who have received certificates of preparation from their schools will be credited with any subject or subjects in which they pass. The old rule, which fixed a minimum number of points for which credit was given at a preliminary examination (eight for Harvard College and six for the Scientific School) is abolished.
>
> These changes have been made in the interest of greater freedom, both for schools and for students, and to prevent overcrowding school programmes, especially in the last two years, with subjects already sufficiently studied, which students are obliged to carry for examination purposes only. The Committee hope that as a result of changes which allow candidates to take examinations when they are prepared, and to retain credit for whatever they actually accomplish, students will be able to make greater progress, either in the fields of study in which they have already been examined, or in other fields, and to do work of better quality.

Among the secondary schools that send boys to Harvard frequently, there was but one opinion concerning these changes in the rules — they were instantly and heartily approved. Numerous letters were received then, and are still received, praising the College for leading the way in much needed reforms. The following letter from the head-master of one of the largest schools in New England is typical of many received: —

> I write to thank you for your circular of the 21st inst., announcing the changes in the rules governing the admission of students to Harvard College and the Lawrence Scientific School. I need hardly say that all the changes will be heartily welcomed by this school. Schools can no longer feel that they have not sufficient freedom in the matter of preparation of candidates for Harvard College and the Lawrence Scientific School, particularly in the last two years of the preparatory course of study, which have recently been greatly overcrowded years. It seems to me that the present rules must give you better prepared candidates for college work than the former rules.
>
> Thanking you for the great relief which the new rules must bring to all thoroughly earnest secondary schools, I am, . . .

The announcement was made too late to have much effect on the June examinations; but some effect was shown in the increased registration for Preliminary examinations. The figures for the last five years are as follows: —

1902.		1903.		1904.		1905.		1906.	
A.B.	S.B.	A.B.	S.B.	A.B.	S.B.	A.B.	S.B.	A.B.	S.B.
624	82	709	96	659	111	629	98	722	121

Of the seven hundred and twenty-two men who expect to be candidates for the degree of A.B., ninety took advantage of the new rules by taking examinations counting less than eight points; of the one hundred and twenty-one who expect to be candidates for the degree of S.B., sixteen took examinations counting less than six points. (The old rules prescribed eight and six points as the minimum numbers for candidates for the degrees of A.B. and of S.B. respectively.)

As another means of promoting closer relationships between the University and secondary schools, the Committee suggested the appointment by the Board of Overseers of a new "visiting committee" composed partly of schoolmasters, whose functions shall be to inquire into the relations of the College and Scientific School with secondary schools, the terms of admission, and their administration, with a view to making available for the Faculty impartial criticism and advice from outside the University, and to giving the schools the feeling that their opinions and interests have representation on an official committee of the University. The Committee has been established.

In examining the 1,132 applications with which the Committee have dealt this year, they have discovered more problems than they have solved; but they believe that some progress has been made toward simpler and more equable methods of admission; and they look forward hopefully to a better adjustment of our methods and requirements to school work.

J. G. HART,
Chairman of the Committee on Admission.

REPORT OF THE SECRETARY FOR APPOINTMENTS.

TO THE PRESIDENT OF THE UNIVERSITY: —

SIR, — I have the honor of presenting a report of the work of the Appointments Office for the year ending September 30, 1906.

The total number of men registered with the Office on September 30, 1906, was 3,338 as against 3,150 at the same date in 1905, — an increase of 188. During the year 1905–06, as formerly, the demand on the University for teachers has exceeded that for men to fill business or technical positions.

The following table shows, as reported to the Office, the number of calls for teachers from schools, colleges or universities, and for men to take positions in business houses: —

Calls for Teachers: —		
Direct from Schools, Colleges, and Universities	518	
Indirect, through Teachers' Agencies	235	753
Calls from Business Houses: —		
Direct	205	
Indirect, through Agencies	13	218
Total calls to fill Permanent Positions		971

The following tables show the number of permanent positions filled. The total is 444: —

PERMANENT TEACHING POSITIONS.

Universities or Colleges: —		
Harvard University	103	
Other Universities and Colleges	68	171
Technical Schools: —		
Harvard University	9	
Other Technical Schools	10	19
Normal Schools		2
Naval Academy		2
Cadet School, U.S. Revenue Cutter Service		2
Private Schools, Endowed Schools, Academies, Seminaries: —		
Regular Teachers	32	
Substitute Teachers	2	34
Public High Schools		10
Winter Camp (Teacher)		1
Tutor for Schools		1
Tutors or Companions (one year)		17
Private Assistant to Professor		1
Total		260

ADMINISTRATIVE POSITIONS (EDUCATIONAL).

Superintendents of Schools	4
Head-masters or Principals	8
Sub-masters	3
Total	15

COLLEGE POSITIONS (NOT TEACHING).

Corrector (examination books)	1
Librarian	1
Proctors (College rooms)	74
Secretary	1
Total	77

PERMANENT BUSINESS POSITIONS.

Banking Houses		4
Brokerage Firms		4
Club Clerk		1
Department Stores		2
Dry Goods House		1
Hotel Clerk		1
Importing Houses		2
Insurance Companies: —		
Fire Insurance	1	
Actuary	1	2
Law Office		1
Manufacturing Concerns		6
Newspaper Reporter		1
Publishing House		1
Secretaries		2
Secretary of Legation		1
Telephone Companies		6
Total		35

PERMANENT BUSINESS POSITIONS (TECHNICAL).

Chemists		11
Draughtsman and Designer, Landscape Architect's Office		1
Engineers:		
Civil	6	
Electrical	19	
Mechanical	4	
Mining and Metallurgical	13	42
Geologist		1
Pathologist		1
Zoölogist		1
Total		57

The following table shows the number of temporary positions filled, — 1,085 in all: —

TEMPORARY WORK.

Athletic Coaches		2
Attendants		4
Botanical Collector		1
Canvassers		21
Caretakers of Houses		3
Chauffeur		1
Choremen		32
Clerks		174
Collectors		24
Companion (Travelling)		1
Correctors (Examination Books, Themes)		3
Destroying Tree Pests		1
Dramatic Club (Scene Shifters, Chair Movers, etc.)		11
Draughtsmen		6
Elevator Man		1
Errands (Messengers)		9
Farm Hands		3
Furnace Tenders		5
Gardening		3
Guides		46
Hotel Help		13
Inspector (Concrete Work)		1
Laboratory Assistant (Wood's Hole Biological Station)		1
Lecturers		2
Library Attendants		16
Masseur		1
Meter Readers		32
Monitors		19
Museum Guards		19
Musicians		11
Newspaper Correspondents		3
Night School Teacher		1
Outing Class Teacher		1
Painters (House)		3
Printers		3
Proctors for Examinations		78
Readers		10
Research Worker		1
Room for Services		5
Secretaries		6
Settlement Workers		2
Snow Shovellers		5
Solicitors		10
Stenographers		17
Store Clerks		43
Substitutes or Tutors for Schools		7
Summer Camp: —		
Councillors	3	
Tutors	2	5
Summer School Teachers		3
Supervisors of Study		32
Surveyors		2
Ticket Takers		193
Translators		2
Tutors or Companions (less than one year)		41
Tutors (Special Subjects)		127
Tutors (Chinese Students)		3
Typewriters		10
Usher		1
Waiters		4
Watchman (Day)		1
Total		1085
Total permanent and temporary positions		1529

Geographical Distribution.

	Universities or Colleges.	Technical Schools.	Normal Schools.	Naval Academies.	Cadet Schools.	Public Schools.	Private Schools, Endowed, Academies, Seminaries.	Winter Camp.	Substitutes for Schools.	Tutor for Schools.
North Atlantic Division:										
Maine	..	..	..	..	..	..	..	..	..	..
New Hampshire	3	..	..	..	..	..	2	1	..	..
Vermont	..	..	..	..	..	..	..	..	..	..
Massachusetts	107	12	..	..	..	1	11	..	..	..
Rhode Island	..	..	..	..	..	..	..	..	..	..
Connecticut	2	..	..	..	..	..	3	..	..	..
New York	5	2	..	..	..	3	5	..	..	..
New Jersey	..	..	..	..	..	..	1	..	2	1
Pennsylvania	6	..	1	..	..	1	2	..	..	..
South Atlantic Division:										
Maryland	1	..	..	2	2	..	2	..	..	..
District of Columbia	..	..	..	..	..	..	..	..	..	..
North Carolina	1	1	..	..	..	..	1	..	..	..
Georgia	..	2	..	..	..	..	..	..	..	..
South Central Division:										
Kentucky	..	..	..	..	..	1	..	..	..	..
Alabama	..	..	..	..	..	..	..	..	..	..
Texas	1	..	..	..	..	..	..	..	..	..
North Central Division:										
Ohio	6	1	..	..	..	..	3	..	..	..
Indiana	4	..	..	..	..	..	..	..	..	..
Illinois	8	..	1	..	..	..	1	..	..	..
Michigan	1	..	..	..	..	..	..	..	..	..
Wisconsin	7	..	..	..	..	..	..	..	..	..
Minnesota	1	..	..	..	..	..	..	..	..	..
Iowa	1	..	..	..	..	1	..	..	..	..
Missouri	4	..	..	..	..	1	..	..	..	..
South Dakota	..	1	..	..	..	..	..	..	..	..
Kansas	1	..	..	..	..	2	..	..	..	..
Western Division:										
Montana	..	..	..	..	..	..	..	..	..	..
Colorado	2	..	..	..	..	..	..	..	..	..
Nevada	..	..	..	..	..	..	..	..	..	..
Idaho	1	..	..	..	..	..	..	..	..	..
Washington	2	..	..	..	..	..	..	..	..	..
California	2	..	..	..	..	..	1	..	..	..
Canada	3	..	..	..	..	..	..	..	..	..
Cuba	..	..	..	..	..	..	..	..	..	..
Hawaii	..	..	..	..	..	..	..	..	..	..
England	..	..	..	..	..	..	..	..	..	..
France	1	..	..	..	..	..	..	..	..	..
Portugal	..	..	..	..	..	..	..	..	..	..
Europe (or general travel)	..	..	..	..	..	..	..	..	..	..
China	1	..	..	..	..	..	..	..	..	..
Total positions	171	19	2	2	2	10	32	1	2	1

GEOGRAPHICAL DISTRIBUTION (*concluded*).

	Tutors or Companions 1 year.	Superintendent.	Head-master or Principal.	Sub-masters.	Proctors (College Rooms).	Private Assistant to Professor.	Corrector — Examination Books.	Business.	Business — Technical.	Totals for States.
NORTH ATLANTIC DIVISION:										
Maine	1	..	1	..	..	..	..	..	1	3
New Hampshire	..	..	1	..	..	..	..	..	1	8
Vermont	1	..	..	..	..	..	..	..	..	1
Massachusetts	6	3	3	3	74	1	1	23	19	264
Rhode Island	1	1	..	..	..	..	..	..	1	3
Connecticut	1	..	..	..	..	..	..	..	..	6
New York	2	..	..	..	..	..	..	9	16	42
New Jersey	1	..	1	..	..	..	..	..	1	7
Pennsylvania	1	..	1	..	..	..	..	1	2	15
SOUTH ATLANTIC DIVISION:										
Maryland	..	..	..	..	..	..	..	..	..	7
District of Columbia	..	..	..	..	..	..	..	..	1	1
North Carolina	..	..	..	..	..	..	..	..	..	3
Georgia	..	..	..	..	..	..	..	..	..	2
SOUTH CENTRAL DIVISION:										
Kentucky	..	..	..	..	..	..	..	..	..	1
Alabama	..	..	..	..	..	..	..	..	1	1
Texas	..	..	..	..	..	..	..	..	1	2
NORTH CENTRAL DIVISION:										
Ohio	..	..	..	..	..	..	..	1	1	12
Indiana	..	..	..	..	..	..	..	..	..	4
Illinois	..	..	..	..	..	..	..	..	1	11
Michigan	..	..	..	..	..	..	..	..	3	4
Wisconsin	..	..	..	..	..	..	..	..	..	7
Minnesota	..	..	..	..	..	..	..	..	1	2
Iowa	..	..	1	..	..	..	..	..	..	3
Missouri	..	..	..	..	..	..	..	..	2	7
South Dakota	..	..	..	..	..	..	..	..	..	1
Kansas	..	..	..	..	..	..	..	..	..	3
WESTERN DIVISION:										
Montana	..	..	..	..	..	..	..	1	..	1
Colorado	1	..	..	..	..	..	..	..	..	3
Nevada	..	..	..	..	..	..	..	..	1	1
Idaho	..	..	..	..	..	..	..	..	..	1
Washington	..	..	..	..	..	..	..	..	..	2
California	..	..	..	..	..	..	..	..	..	3
CANADA	..	..	..	..	..	..	..	..	1	4
CUBA	..	..	..	..	..	..	..	..	2	2
HAWAII	..	..	..	..	..	..	..	..	1	1
ENGLAND	1	..	..	..	..	..	..	..	..	1
FRANCE	..	..	..	..	..	..	..	1	..	2
PORTUGAL	..	..	..	..	..	..	..	1	..	1
EUROPE (or general travel)	1	..	..	..	..	..	..	..	..	1
CHINA	..	..	..	..	..	..	..	..	..	1
	17	4	8	3	74	1	1	37	57	444

The following table shows the demands on various Departments of the University for teachers in single subjects: —

Greek	7	Mathematics	18
Latin	6	Engineering	2
English	43	Landscape Architecture	1
Public Speaking	6	Astronomy	4
French	6	Physics	3
German	4	Chemistry	22
Spanish	1	Biology	1
History	23	Physiography	1
Government	6	Metallurgy	1
Economics	10	Geology	5
Law	5	Botany	7
Philosophy	3	Dentistry	2
Psychology	1	Pathology	3
Social Ethics	1	Music	2
Education	2	Total	196

The following table shows the number of men supplied to teach combined subjects: —

Greek and Latin	8	German, Physics, and Music	1
Classics and Mathematics	1	History and Government	2
Latin and Mathematics	1	History and English	1
Latin, Mathematics, and History	1	History and French	1
Latin and General Subjects	1	History, Greek, and Physical Director	1
English, Latin, and Mathematics	1	Civil Government, General History, Spanish, and English	1
English and German	1	Mathematics and Astronomy	1
English and General Subjects	1	Mathematics and English	1
French, English, Greek, Algebra, and Geometry	1	Mining and Metallurgy	1
French and Italian	1	Physics and Chemistry	1
French and Spanish	1	Chemistry and Biology	1
French, German, and Latin	1	Zoölogy and Chemistry	1
French, German, Latin, and History	1	Biology and Geology	1
Romance Languages	9	General Teacher	1
German and French	2	Total	47
German and Latin	1		

The table on pages 350, 351 sets forth the geographical distribution of the permanent teaching, educational, and business positions filled.

The salaries of 393 out of the 444 permanent positions filled amount to $305,267.83; divided as follows: —

	Salaries.	Number of Positions.
Universities, Colleges, and Technical Schools	$150,547.00	254
Secondary Schools	81,910.00	60
Tutoring	17,771.00	15
Business	55,039.83	64
Total	$305,267.83	393

No report has been received from 51 men; their salaries may be estimated at $30,800.

The above tables show the number of positions filled by the Appointments Office in coöperation with the various Departments of the University. The increase over last year of 411 is to be explained partly by the natural growth of the Office, partly also by the closer coöperation of the Departments, not only in making suggestions to the Office but also in reporting the positions secured through their direct recommendation. Satisfactory as this increase is, there is yet much to be done in bringing the Office into communication with the leading business houses in different parts of the country, and in encouraging students of the various graduate schools of the University to register with the Office.

E. H. WELLS,
Secretary for Appointments.

ORDINARY DEGREES CONFERRED, 1902–06.

	1902.	1903.	1904.	1905.	1906.
Bachelors of Arts	422	511	459	427	374
Bachelors of Arts out of course	32	42	38	44	52
Bachelors of Science	76	101	77	91	62
Bachelors of Science out of course	7	5	7	16	13
Bachelors of Divinity	5	4	7	7	6
Bachelors of Divinity out of course	1	1	1	0	0
Bachelors of Laws	146	157	169	170	178
Bachelors of Laws out of course	16	6	13	13	13
Bachelors of Agricultural Science	5	6	3	1	2
Doctors of Medicine	130	109	131	82	80
Doctors of Medicine out of course	1	3	4	2	1
Doctors of Dental Medicine	32	27	25	32	34
Doctors of Veterinary Medicine	0	0	0	0	0
Doctor of Veterinary Medicine out of course	1	0	0	0	0
Masters of Arts	110	117	157	131	110
Masters of Arts out of course	10	8	5	12	4
Masters of Science	8	6	2	4	3
Masters of Science out of course	0	1	0	1	0
Doctors of Philosophy	28	28	46	39	46
Doctors of Science	3	1	1	0	0
Metallurgical Engineer	0	0	0	1	0
Mining Engineers	0	0	0	0	3
Totals	1033	1133	1145	1073	981

TABLE I.

ILLNESS REPORT, 1905–06.

Diseases.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	June.	Total.
Appendicitis	..	9	4	6	8	5	6	5	1	3	47
Asthma	..	..	2	2	..	1	1	3	1	..	10
Bronchitis	..	3	4	9	6	2	8	7	2	..	41
Chicken-pox	..	..	..	..	..	..	..	..	1	..	1
Colds — unclassified	..	7	22	9	18	20	19	18	9	..	122
Coryza	..	2	2	1	7	..	2	1	..	..	15
Diarrhoea	..	6	2	6	4	1	3	2	3	2	29
Diphtheria	..	1	1	..	17	12	3	..	1	..	35
Ear, of the	..	1	1	2	5	..	2	2	3	..	16
Eye, of the	..	8	7	10	5	11	16	11	14	1	83
General Debility	1	6	7	7	9	13	11	14	13	7	88
Headache	..	2	1	..	..	2	2	4	2	2	15
Indigestion	..	16	8	15	15	5	6	17	5	5	92
Insomnia	..	..	..	2	2	..	2	..	..	..	6
Jaundice	..	4	2	4	5	..	2	..	1	1	19
La Grippe	1	10	11	6	22	13	14	26	11	1	115
Laryngitis	..	1	..	2	2	1	4	2	..	..	12
Malaria	..	1	..	..	..	..	..	1	1	2	5
Measles	..	..	..	3	7	..	2	13	3	..	28
Miscellaneous	1	17	20	18	20	14	17	17	7	6	137
Mumps	..	..	..	..	5	3	6	5	..	..	19
Neuralgia	..	1	1	..	2	1	1	3	3	..	12
Pharyngitis	..	4	1	7	22	12	3	5	6	..	60
Pneumonia	..	..	..	..	..	1	..	..	..	..	1
Rheumatism	..	..	3	5	4	4	11	4	4	..	35
Scarlet Fever	..	..	..	..	1	..	6	..	1	..	8
Skin, of the	1	4	3	2	3	2	5	2	3	1	26
Surgical	1	43	44	30	27	28	28	30	24	6	261
Teeth, of the	..	..	1	..	3	1	1	3	5	..	14
Tonsilitis	1	9	10	14	30	15	25	18	23	5	150
Typhoid	..	2	1	..	..	..	..	..	..	..	3
Totals	6	157	158	160	249	167	206	213	147	42	1505
Visits	1	124	113	222	251	190	199	168	160	58	1486
Office consultations, medical	20	244	279	218	403	241	279	273	141	140	2238
Office consultations, surgical	11	149	169	142	161	65	116	122	170	81	1186
Total number of consultations	32	517	561	582	815	496	594	563	471	279	4910

Calls on students not found n (not included **in above**) **5**

Other cases not seen by the Medical Visitor **628**

TABLE II.

ILLNESS REPORT AS RELATED TO THE DIFFERENT SCHOOLS.

Diseases.	College.					Scientific.					Law.	Graduate.	Divinity.	Medical.	Totals.
	1	2	3	4	Sp.	1	2	3	4	Sp.					
Appendicitis . .	7	12	4	4	2	3	..	2	1	2	10	..	..	..	47
Asthma	2	1	6	..	1	..	..	..	..	..	..	..	..	..	10
Bronchitis . . .	8	12	9	1	..	2	..	2	..	4	3	..	..	..	41
Chicken-pox . .	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1
Colds, unclassified	24	46	23	3	5	4	4	..	2	3	5	3	..	..	122
Coryza	3	7	..	2	..	..	1	..	..	..	1	..	1	..	15
Diarrhoea . . .	2	16	7	1	..	1	..	..	1	..	1	..	..	..	29
Diphtheria . . .	5	6	4	2	1	3	..	1	1	..	10	2	..	..	35
Ear, of the . . .	4	2	4	..	..	..	1	2	..	1	1	1	..	..	16
Eye, of the . . .	23	30	10	5	1	6	..	2	1	5	..	..	..	..	83
General Debility .	12	25	12	13	8	3	..	1	1	4	3	5	1	..	88
Headache	2	2	4	1	2	..	2	..	..	1	..	1	..	..	15
Indigestion . . .	22	27	11	6	8	2	2	3	1	2	7	1	..	..	92
Insomnia	..	2	2	..	2	..	..	..	..	..	..	..	..	..	6
Jaundice	4	8	3	..	..	..	1	..	..	..	1	1	..	1	19
La Grippe . . .	25	22	20	13	3	3	3	3	3	8	7	4	1	..	115
Laryngitis . . .	1	5	3	1	..	..	1	..	1	..	..	..	..	..	12
Malaria	..	3	..	..	..	1	..	..	..	..	1	..	..	..	5
Measles	11	8	5	1	2	1	..	..	..	..	..	..	..	..	28
Miscellaneous . .	18	28	25	11	11	6	3	4	1	2	15	13	..	..	137
Mumps	8	3	1	2	..	..	..	1	..	..	..	3	..	1	19
Neuralgia . . .	1	6	2	1	..	..	1	..	1	..	..	..	..	..	12
Pharyngitis . . .	12	24	9	6	3	1	1	..	..	..	4	..	..	..	60
Pneumonia . . .	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Rheumatism . .	7	8	6	5	3	..	2	..	1	1	2	..	..	..	35
Scarlet Fever . .	2	1	2	1	..	..	..	1	..	..	1	..	..	..	8
Skin, of the . . .	3	7	6	2	1	1	1	..	..	1	2	2	..	..	26
Surgical	53	58	40	25	7	7	7	6	3	7	35	10	1	2	261
Teeth, of the . .	4	5	2	1	..	..	..	..	..	..	2	..	..	..	14
Tonsilitis	34	34	25	14	10	4	2	2	6	2	7	8	2	..	150
Typhoid	1	..	1	1	..	..	..	..	..	..	..	..	..	..	3
Totals	299	409	246	122	70	48	32	30	24	43	118	54	6	4	1505
No. of Students .	488	601	417	242	151	95	131	73	63	136	717	378	37	..	
% of "Sign-offs"	61	68	59	51	46	51	24	41	38	32	16	14	16	..	
No. of Students cared for at Infirmary	41	85	60	37	17	13	11	9	11	17	90	33	2	6	
% of "Sign-offs"	8	14	14	15	11	14	8	12	17	12½	13	9	5	..	

TABLE III.

STILLMAN INFIRMARY.

LIST OF CASES, 1905–06.

Abscess ischio-rectal	2	La Grippe	44
“ peritonsillar	3	Laryngitis	3
“ miscellaneous	6	Malaria	4
Adenitis	1	Measles	11
Adenoids	2	Miscellaneous Medical	38
Appendicitis	27	“ Surgical	59
Bronchitis	10	Mumps	7
Carbuncle	2	Neurasthenia	6
Chicken-pox	1	Otitis Media	3
Concussion — cerebral	4	Peritonsil tis	6
Colds — unclassified	19	Pharyngitis	5
Coryza	2	Pleuritis	2
Debility	3	Rheumatism	6
Diphtheria	29	Sepsis	22
Dislocations	4	Scarlet Fever	6
Fracture — second cervical vertebra	1	Synovitis of knee	2
“ colles	1	Tonsilitis	58
“ femur	1	Tuberculosis — pulmonary	1
“ fibula	1	Typhoid Fever	1
“ patella	1	Urticaria	1
“ radius	1	No diagnosis	15
Gastro enteritis	4		
Jaundice	7	Total	432

Room patients	91
Ward patients	341
Total	432

Discharged — well	257
“ relieved	169
“ not relieved	5
Died	1
Total	432

Total number of hospital days	3,432
Daily average	12.43

TABLE IV.

ILLNESS TOTALS BY DISEASES, 1899–1906.

Diseases.	1899–00	1900–01	1901–02	1902–03	1903–04	1904–05	1905–06
Appendicitis	17	33	38	36	26	32	47
Asthma	. .	. .	. .	. .	13	8	10
Bronchitis	. .	. .	138	114	88	68	41
Chicken-pox	11	6	2	7	6	10	1
Colds — unclassified	1416	1396	223	885	894	477	122
Coryza	. .	. .	299	82	61	89	15
Diarrhoea	285	184	157	240	154	97	29
Diphtheria	5	12	4	7	13	11	35
Ear, of the	46	43	40	45	25	32	16
Eye, of the	266	259	228	228	226	278	83
General Debility	69	95	64	70	98	87	88
Headache	209	147	98	137	144	128	15
Indigestion	370	411	372	433	481	335	92
Insomnia	. .	. .	15	19	15	23	6
Jaundice	20	17	11	19	20	14	19
La Grippe	210	276	99	422	307	303	115
Laryngitis	. .	. .	22	23	25	16	12
Malaria	31	32	26	33	26	29	5
Measles	106	1	42	7	75	20	28
Miscellaneous	494	719	406	390	304	270	137
Mumps	44	66	3	12	28	24	19
Neuralgia	69	68	64	56	55	38	12
Pharyngitis	. .	. .	307	168	201	144	60
Pneumonia	9	6	10	7	9	5	1
Rheumatism	61	53	46	41	57	30	35
Scarlet Fever	3	4	2	7	7	. .	8
Skin, of the	26	79	80	61	60	40	26
Surgical	335	429	355	377	377	332	261
Teeth, of the	. .	. .	43	80	87	56	14
Tonsilitis	213	158	185	201	280	161	150
Typhoid	9	15	10	6	8	10	3

TABLE V.

ILLNESS YEARLY TOTALS, 1899–1906.

	1899–00	1900–01	1901–02	1902–03	1903–04	1904–05	1905–06
Total Cases of Illness . . .	4392	4603	3457	4298	4232	3176	1505
Visits by Medical Visitor . .	1463	1326	1050	778	1137	1278	1486
Office Consultations	1886	2279	2500	1887	3056	3038	3424
Total Consultations	3349	3605	3550	2665	4193	4311	4910
Calls on Students not found in	412	424	280	342	268	119	5
Other cases not seen by the Medical Visitor	2017	2186	1558	2031	2800	2095	628

TABLE VI.

STUDENTS CARED FOR AT THE STILLMAN INFIRMARY, 1902–1906.

	1902–03	1903–04	1904–05	1905–06
Ward patients	134	173	264	341
Private room	89	117	113	91
Total number admitted	223	290	377	432
Total number hospital days	1682	1805	2631	3432
Daily average	6.16	6.58	9.63	12.43

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HARVARD UNIVERSITY

TREASURER'S STATEMENT

1905-06

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◆

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TREASURER'S STATEMENT FOR 1905–06.

To the Board of Overseers of Harvard College: —

The Treasurer submits the annual statement of the financial affairs of the University, for the year ending July 31, 1906.

The net income of the general investments was divided at the rate of 4.74 per cent., except in the following cases, among the Funds and balances to which these investments belong. The exceptions are some temporary balances which were allowed lower rates of interest, and the balance called "Gains and Losses for General Investments," which, in accordance with the vote quoted below, was allowed no interest. The rate compared with that for 1904–05 shows a decrease of 0.18 per cent. The income remaining after the above division, $1,237.78, was credited as usual to the University account.

From the income of all bonds bought at a premium for general investments $8,554.46 was credited to the respective investment accounts, and for special investments $856.66, as the fair yearly repayment to make good the whole of the premiums at the maturity of the bonds.

The gains amounting to $2,447.62 during the year, from the sale of securities held as general investments, were credited to "Gains and Losses for General Investments" in accordance with the following vote of the Corporation, of October 26, 1891.

> "*Voted*, that the sum of $23,341.97 being the net gain from sales of bonds at a profit, heretofore credited to the account of Railroad Bond Premiums, be transferred as of July 31, 1891, to a new account to be called 'Gains and Losses for General Investments,' which account shall be credited with all gains and charged with all losses hereafter arising from sales of property belonging to the general investments. As this account belongs pro rata to all the Funds sharing in general investments it is not to be allowed interest when its balance is on the credit side nor to be charged with interest when its balance is on the debit side."

There were no losses to be charged to this account. Its credit balance July 31, 1906, was $598,969.63.

The gains amounting to $14,968.47 during the year, from the sale of property held as special investments, and the losses amounting to $492.40, were carried to the accounts of the Funds the investments of which were sold.

Aid to students, in the form of fellowships, scholarships and loans, amounted during the year to $130,237.49.

SUMMARY OF INVESTMENTS.

(For details, see pp. 48 and 53.)

General Investments.	Principal, Aug. 1, 1905.	Principal, July 31, 1906.	Income.
Mortgages, Notes. &c.,	$1,350,000.00	$1,310,000.00	$68,525.10
Public Funds,	108,584.55	108,584.55	4,588.52
Railroad Bonds,	5,155,195.83	5,147,001.67	230,896.77
Traction Bonds,	1,183,632.58	1,584,641.14	51,317.51
Sundry Bonds,	2,041,970.90	2,340,487.61	96,468.11
Railroad Stocks,	656,962.36	1,121,817.18	35,900.50
Manufacturing and Telephone Stocks,	473,062.77	473,062.77	27,790.00
Real Estate Trust Stocks,	695,421.60	695,421.60	20,061.50
Sundry Stocks,		132,107.00	6,000.00
Real Estate,	2,298,970.21	2,424,720.45	149,722.37
Advances to			
Bussey Trust,	232,671.81	345,217.07	12,916.87
Calvin & Lucy Ellis Real Estate,	167.12	345.31	7.39
William Hayes Fogg Art Museum,		93.68	
Emerson Hall,		3,368.81	
Dental School Real Estate,	34.52	87.58	
Medical School,		5,553.39	
" " Real Estate,		106.69	
" " Undertaking,	751,311.93	1,183,526.43	36,914.66
Observatory,	5,466.59	5,466.59	273.33
Peabody Museum of American Archaeology and Ethnology,	1,981.04	2,117.79	89.15
Botanic Department,	8,088.11	8,990.78	404.41
Harvard Dining Association,	76,649.77	180,792.13	7,570.17
Randall Hall Association,	32,202.27	31,202.27	1,610.12
Uriah A. Boyden Fund,	3,243.78	5,735.53	
T. Jefferson Coolidge Fund,	1,076.03		
Classical Publication Fund of the **Class of 1856,**	1,395.85	1,505.58	69.79
Woodland Hill Fund,	2,011.46	2,543.63	100.57
Stadium,	55,886.08	48,665.32	2,779.24
Sundry Accounts,	1,077.43	4,254.89	
Term Bills overdue,	57,675.59	50,966.46	
Amounts carried forward,	$15,194,740.18	$17,218,383.90	$754,006.06

SUMMARY OF INVESTMENTS, CONTINUED.

General Investments.	Principal, Aug. 1, 1905.	Principal, July 31, 1906.	Income.
Amounts brought forward, .	$15,194,740.18	$17,218.383.90	$754,006.08
Cash in Adams Trust Co., ...	51,692.62		1,181.73
" American Loan and Trust Co.,			180.54
" City Trust Co., ...		40,342.41	
" Equitable Trust Co., ...	48,787.87	3,311.42	1,132.05
" Merchants National Bank, .	7,937.54	10,483.64	134.38
" National Shawmut Bank, . .	25,145.21	180.52	35.31
" National Union Bank, . . .	61,719.58	1,517.37	259.28
" Old Boston National Bank, .	42,858.31	29,491.67	1,596.88
" hands of Bursar, ...	38,217.37	40,518.71	
Totals of general investments,	$15,471,098.68	$17,344,229.64	$758,526.25
Totals of special investments,	2,564,927.03	2,633,682.07	104,283.00
Totals of all investments, . .	$18,036,025.71	$19,977,911.71	$862,809.25

CHANGES IN FUNDS DURING THE YEAR.

Total of Funds and balances, July 31, 1906, ...			$19,977,911.71
" " " August 1, 1905, ...			18,036,025.71
Increase of Funds and balances during the year, ...			$1,941,886.00
The increase results from			
Gifts for capital, establishing new Funds or increasing old ones,			$1,859,298.23
Increase of Funds and balances, excluding gifts for capital.			
Net increase of Funds and balances which appear at both the beginning and the end of the year, excluding the Insurance and Guaranty Fund and the Henry L. Pierce (Residuary) Fund, ... , ...	$168,934.60		
Increase of Funds established during the year, ...	5,400.73		
Credit balances created, mainly by gifts for immediate use, ...	9,515.64		
Gains by changes of investments,	17,416.09	$201,267.06	
Less decrease of Funds and balances.			
Sundry balances spent, mainly of gifts for special purposes, . . .	$58,890.58		
Loss by changes of investments, .	492.40		
Decrease of Insurance and Guaranty Fund and Henry L. Pierce (Residuary) Fund by excess of expenditures over income in University, College and Library accounts (see p. 9),	59,296.31	118,679.29	
Leaving net increase of Funds and balances, excluding gifts for capital, ...			82,587.77
			$1,941,886.00

INCOME AND CURRENT EXPENSES FOR DEPARTMENTS.

SUMMARIES.

These tables show briefly for each Department the income available for current expenses, the amount of such expenses, and the resulting surplus, or deficit. They are therefore summaries of only the general items in the more comprehensive and detailed tables beginning on page 74.

THE UNIVERSITY.

(See Table No. I, page 75.)

AVAILABLE FOR EXPENSES.

Income of Funds and balances,	$63,084.75	
Gifts,	173.72	
Rents,	2,810.00	
Sales,	1,846.16	$67,914.63

PAYMENTS.

Overseers' expenses,	$2,249.38	
Office expenses,	20,594.59	
Salaries,	45,989.31	
Retiring allowances,	25,774.14	
Memorial Hall and Sanders Theatre,	757.72	
Peabody Museum of American Archaeology and Ethnology (part, see Table XIV, page 116),	1,248.32	
Semitic Museum (part, see Table XV, page 117),	1,778.82	
Germanic Museum (part, see Table XVI, page 118),	332.72	
William Hayes Fogg Art Museum (part, see Table XVII, page 119),	2,772.49	
Appleton Chapel (part, see Table XIX, page 120),	6,412.53	
Phillips Brooks House (part, see Table XX, page 121),	1,829.41	
General expenses,	20,223.41	129,962.84
Deficit,		$62,048.21

THE COLLEGE, INCLUDING THE LAWRENCE SCIENTIFIC SCHOOL, THE GRADUATE SCHOOL OF ARTS AND SCIENCES, AND THE GRADUATE SCHOOL OF APPLIED SCIENCE.

(See Table No. II, page 79.)

AVAILABLE FOR EXPENSES.

Income of Funds and balances,	$191,462.08	
Gifts,	4,270.39	
Sales,	3,560.48	
Insurance,	396.00	
Receipts from students (except tuition fees in the School for Social Workers and Gymnasium locker fees),	536,699.15	
Sundry receipts at the summer camp at Squam Lake,	11,290.42	
Amount carried forward,		$747,678.52

THE COLLEGE, CONTINUED.

Amount available for expenses, brought forward,		$747,678.52

PAYMENTS.

Salaries for instruction,	$497,640.72	
Salaries for administration,	14,884.00	
Appropriations,	32,498.95	
Scholarships from unrestricted income,	3,610.00	
Expenses on account of public buildings,	34,719.37	
Expenses on account of dormitories,	40,906.64	
Summer Schools,	24,916.82	
Museum of Comp. Zoölogy (part, see Table XIII, p. 115),	3,877.50	
Jefferson Physical Lab. (part, see Table XVIII, p 120),	718.11	
Hemenway Gymnasium (part, see Table XXI, p. 122),	6,306.40	
General expenses,	69,447.20	729,525.71
Surplus,		$18,152.81

THE LIBRARY.

(See Table No. III, page 97.)

AVAILABLE FOR EXPENSES.

Income of Funds and balances,	$31,351.71	
Gifts,	2,377.39	
Fees,	95.00	
Sales,	14.05	$33,838.15

PAYMENTS.

Salaries,	$17,675.00	
Services, cataloguing, administration, etc.,	18,596.56	
Services in Department Libraries,	1,235.16	
Services of purchasing agent abroad,	1,692.69	
General expenses,	10.039.65	49,239.06
Deficit,		$15,400.91

UNIVERSITY, COLLEGE, AND LIBRARY.

COMBINED ACCOUNTS.

University deficit as above,		$62,048.21
Library " "		15,400.91
		$77,449.12
College surplus as above,		18,152.81
Deficit in the combined accounts,		$59,296.31
The deficit was paid by principal from		
Insurance and Guaranty Fund,	$32,005.06	
Henry L. Pierce (Residuary) Fund,	27,291.25	$59,296.31
In 1904–05 there was a deficit of		$25,187.11
Principal of the Insurance and Guaranty Fund, July 31, 1906,		4,000.00
" " Henry L. Pierce (Residuary) Fund, "		178,183.71

DIVINITY SCHOOL.

(See Table No. IV, page 100.)

Available for Expenses.

Income of Funds and balances,	$25,928.76	
Gifts,	1,501.40	
Sales,	57.75	
Receipts from students,	9,284.90	$36,772.81

Payments.

Salaries for instruction,	$32,838.85	
Salaries for administration,	1,750.00	
Books,	556.06	
General expenses,	6,348.74	41,493.65
Deficit,		$4,720.84

In 1904–05 there was a deficit of $3,085.92

The Divinity School credit balance on July 31, 1906 was $6,364.00

LAW SCHOOL.

(See Table No. V, page 102.)

Available for Expenses.

Income of Funds and balances,	$32,763.34	
Sales,	119.31	
Receipts from students,	107,179.00	$140,061.65

Payments.

Langdell Hall, construction,	$16,530.25	
Salaries for instruction,	55,383.33	
Salaries for administration,	11,072.26	
Scholarships from unrestricted income,	6,750.00	
Books,	13,738.75	
General expenses,	11,752.28	115,226.87
Surplus,		$24,834.78

In 1904–05 there was a surplus of $41,351.22

The Law School credit balance on July 31, 1906 was . $347,742.95

MEDICAL SCHOOL.

(See Table No. VI, page 104.)

Available for Expenses.

Income of Funds and balances,	$53,499.18	
Gifts,	3,700.00	
Receipts from students,	69,455.25	
Amount available for expenses, carried forward,		$126,654.43

MEDICAL SCHOOL, CONTINUED.

Amount available for expenses, brought forward, . . .		$126,654.43

PAYMENTS.

Salaries for instruction, ...	$92,201.67	
Salaries for administration, ...	4,243.00	
Retiring allowance, ...	1,000.00	
Appropriations, ...	12,712.95	
General expenses, ...	23,910.77	134,068.39
Deficit, ...		$7,413.96
In 1904–05 there was a deficit of	$24,853.93	
The Medical School debit balance on July 31, 1906 was	$5,553.39	

DENTAL SCHOOL.

(See Table No. VII, page 109.)

AVAILABLE FOR EXPENSES.

Income of Funds and balances, ...	$1,803.08	
Fees from Infirmary, ...	6,105.10	
Sales, ...	691.70	
Receipts from students, ...	15,831.44	$24,431.32

PAYMENTS.

Salaries for instruction, ...	$8,775.00	
Salaries for administration, ...	500.00	
General expenses, ...	13,544.94	22,819.94
Surplus, ...		$1,611.38
In 1904–05 there was a deficit of $19,118.26, caused by the payment of $20,000 from accumulated income toward the cost of the site for the proposed building. Otherwise there would have been a surplus of	$881.74	
The Dental School credit balance on July 31, 1906 was .	$12,958.11	

BUSSEY INSTITUTION.

(See Table No. VIII, page 110.)

AVAILABLE FOR EXPENSES.

Income of Funds and balances, ...	$8,415.28	
Rents, ...	723.87	
Sales, ...	174.86	
Board of animals, ...	4,724.49	
Horticultural Department receipts, ...	1,911.05	
Receipts from students, ...	3,570.00	$19,519.55

PAYMENTS.

Salaries for instruction, ...	$8,200.00	
Horticultural Department expenses, ...	1,877.48	
General expenses, ...	7,160.42	17,237.90
Surplus, ...		$2,281.65
In 1904–05 there was a deficit of	$1,422.35	
The Bussey Institution credit balance on July 31, 1906 was	$28,826.48	

ARNOLD ARBORETUM.

(See Table No. IX, page 111.)

Available for Expenses.

Income of Funds and balance,	$15,012.74	
Gifts,	7,275.00	
Sales,	2,512.95	
Rent,	165.00	$24,965.69

Payments.

Salaries,	$3,500.00	
General expenses,	20,986.35	24,486.35
Surplus,		$479.34
In 1904–05 there was a surplus (from gifts) of	$9,855.29	
The Arboretum Construction Gifts credit balance on July 31, 1906 was	$29,385.15	

BOTANIC GARDEN AND BOTANIC MUSEUM.

(See Table No. X, page 112.)

Available for Expenses.

Income of Funds,	$4,349.87	
Gifts,	4,200.00	
Rent,	700.00	9,249.87

Payments.

Interest on debt,	$404.41	
General expenses,	9,748.13	10,152.54
Deficit,		$902.67
In 1904–05 there was a deficit of	$827.02	
The debt of the Botanic Garden and Botanic Museum on July 31, 1906 was	$8,990.78	

GRAY HERBARIUM.

(See Table No. XI, page 113.)

Available for Expenses.

Income of Funds and balance,	$3,348.76	
Asa Gray's copyrights,	776.79	
Gifts,	5,380.00	
Sales and commissions,	2,671.96	$12,177.51

Payments.

Salaries,	$4,308.33	
General expenses,	7,016.87	11,325.20
Surplus,		$852.31
In 1904–05 there was a deficit of	$57.38	
The Gray Herbarium credit balance on July 31, 1906 was	$1,734.70	

OBSERVATORY.

(See Table No. XII, page 113.)

Available for Expenses.

Income of Funds,	$31,517.18	
Appropriation from Fund for the Advancement of Astronomical Science (1902),	2,100.77	
Gifts,	5,500.00	
Rent,	600.00	
Sales,	235.09	$39,953.04

Payments.

Salaries,	$17,100.00	
Services,	7,156.11	
Interest on debt,	273.33	
General expenses,	15,423.60	39,953.04
In 1904–05 there was a deficit of	$13.07	
The debt of the Observatory on July 31, 1906 was	$5,466.59	

MUSEUM OF COMPARATIVE ZOÖLOGY.

(See Table No. XIII, page 115.)

Available for Expenses.

Income of Funds and balance,	$29,295.23	
Use of lecture room,	700.00	
Sales,	580.62	
Gifts,	5,000.00	$35,575.85

Payments.

Salaries,	$10,475.00	
General expenses,	25,570.15	
	$36,045.15	
Less the amount which was paid from College income (see Table No. I, page 94),	3,877.50	32,167.65
Surplus,		$3,408.20
In 1904–05 there was a surplus of	$4,151.59	
The Museum of Comparative Zoölogy credit balance on July 31, 1906 was	$35,714.52	

PEABODY MUSEUM
OF AMERICAN ARCHAEOLOGY AND ETHNOLOGY.

(See Table No. XIV, page 116.)

AVAILABLE FOR EXPENSES.

Income of Funds,	$6,451.37	
Gifts,	625.00	
Use of heating plant,	75.00	$7,151.37

PAYMENTS.

Salary of Peabody Professor and Curator,	$2,422.15	
Interest on debt,	89.15	
General expenses,	6,025.14	
	$8,536.44	
Less the amount which was paid from University income (see Table No. I, page 77),	1,248.32	7,288.12
Deficit,		$136.75
In 1904–05 there was a surplus, which was applied toward the payment of the debt, of	$60.62	
The debt of the Peabody Museum of American Archaeology and Ethnology on July 31, 1906 was	$2,117.79	

SEMITIC MUSEUM.

(See Table No. XV, page 117.)

AVAILABLE FOR EXPENSES,		Nothing.

PAYMENTS.

Salary of Curator,		$500.00
General expenses,		1,278.82
Deficit, which was paid from University income (see Table No. I, page 77),		$1,778.82
In 1904–05 there was a deficit of	$1,590.84	

GERMANIC MUSEUM.

(See Table No. XVI, page 118.)

AVAILABLE FOR EXPENSES.

Income of Funds,		$318.24
Gift,		200.00
		$518.24

PAYMENTS.

General expenses,		$850.96
Deficit, which was paid from University income (see Table No. I, page 77),		$332.72
In 1904–05 there was a deficit of	$865.48	

WILLIAM HAYES FOGG ART MUSEUM.

(See Table No. XVII, page 119.)

AVAILABLE FOR EXPENSES.

Income of Funds and balance,	$2,392.52	
Sales,	9.60	$2,402.12

PAYMENTS.

Salary of Curator,	$500.00	
General expenses,	5,243.48	
	$5,743.48	
Less the amount which was paid from University income (see Table No. I, page 77),	2,772.49	2,970.99
Deficit,		$568.87

In 1904–05 there was a surplus of	$366.66
The William Hayes Fogg Art Museum debit balance on July 31, 1906 was	$93.68

JEFFERSON PHYSICAL LABORATORY.

(See Table No. XVIII, page 120.)

AVAILABLE FOR EXPENSES.

Income of Funds and balance,		$3,653.92

PAYMENTS.

General expenses,	$4,524.54	
Less the amount which was paid from College income (see Table No. II, page 94),	718.11	3,806.43
Deficit,		$152.51

In 1904–05 there was a surplus of	$338.54
The Jefferson Physical Laboratory credit balance on July 31, 1906 was	$1,934.53

APPLETON CHAPEL.

(See Table No. XIX, page 120.)

AVAILABLE FOR EXPENSES.

Income of Funds,		$2,419.01

PAYMENTS.

Preaching and morning services,	$3,207.95	
Salaries of administrator, organist, and choir-master,	2,400.00	
General expenses,	3,223.59	8,831.54
Deficit, which was paid from University income (see Table No. 1, page 77),		$6,412.53

In 1904–05 there was a deficit of	$6,425.20

PHILLIPS BROOKS HOUSE.

(See Table No. XX, page 121.)

AVAILABLE FOR EXPENSES.

Income of Funds,		$1,255.22

PAYMENTS.

Salary of Secretary,	$500.00	
General expenses,	2,584.63	3,084.63
Deficit, which was paid from University income (see Table No. I, page 77),		$1,829.41
In 1904–05 there was a deficit of	$2,123.00	

HEMENWAY GYMNASIUM.

(See Table No. XXI, page 122.)

AVAILABLE FOR EXPENSES.

Fees for the use of the Gymnasium,	$168.12	
Fees for the use of Gymnasium lockers,	2,959.00	$3,127.12

PAYMENTS.

Salaries,		$5,000.00	
General expenses,		6,122.09	
		$11,122.09	
Less the following items: —			
Amount paid from Divinity School income (see Table No. IV, page 102),	$82.86		
Amount paid from Law School income (see Table No. V, page 104),	1,605.71	1,688.57	9,433.52
Deficit, which was paid from College income (see Table No. II, page 94),			$6,306.40
In 1904–05 there was a deficit of		$7,369.59	

STILLMAN INFIRMARY.

(See Table No. XXII, page 123.)

AVAILABLE FOR EXPENSES.

Income of Funds and balances,	$4,260.65	
Annual fees,	14,204.00	
Receipts from patients,	4,727.48	$23,192.13

PAYMENTS.

Services — administration, nursing, etc.,	$6,183.67	
Other expenses,	14,073.64	20,257.31
Surplus,		$2,934.82
In 1904–05 there was a surplus of	$6,373.30	

GIFTS.

FOR CAPITAL.

ESTABLISHING NEW FUNDS OR INCREASING OLD ONES.

From an anonymous giver, $10,000, to establish a fund the income of which is to be used in the Medical School for an Instructorship in the Department of Theory and Practice.

For the Arnold Arboretum Fund, from

Caleb Chase	$100
Henry P. Curtis	10
H. C. Ernst	20
Robert H. Gardiner	25
B. F. Keith	130
Massachusetts Society for Promoting Agriculture	500
A. Shuman	100
	$885

From the estate of Francis Skinner, $20,000, to be applied to the maintenance of the Arnold Arboretum.

From the estate of Daniel Austin, $1,576.86, the balance, with interest, of his legacy of $7,000 to Harvard College.

From the estate of Daniel Austin, $225.26, the balance, with interest, of his legacy of $1,000 to the Divinity School.

From the estate of William H. Baldwin, Jr., $1,905, the balance of his unrestricted bequest of $2,000 to Harvard College after paying the New York State Inheritance Tax.

From Mrs. William H. Baldwin, Jr., $95, to replace that amount paid as the New York State Inheritance Tax on her husband's bequest of $2,000.

From Mrs. William S. Bullard and her children, $50,000, to establish the Bullard Professorship of Neuropathology, in memory of William Story Bullard.

From the estate of James C. Carter, $100,000, with a preference, but not a direction, that it shall be "applied in the establishment and maintenance in the Law School of the University of a professorship of General Jurisprudence for the especial cultivation and teaching of the distinctions between the provinces of the written and unwritten law"; and $100,000 for the general purposes of Harvard University.

From the Class of 1846, $130.02, in final payment of the balance of its Class Fund, which is to be held as "The Fund of the Class of 1846" until the death of the last surviving member of the Class, and then to be added to the Francis James Child Memorial Fund.

From the Class of 1881, $3,500, to establish a fund "the income of which shall be expended for the purchase of books for the library of the Division of Chemistry, the money to be spent under the direction of the Director of the Chemical Laboratory."

From members of the Class of 1881, on the twenty-fifth anniversary of their graduation, $88,570, which, with "the sums pledged, when . . . paid, shall . . . be known as the 'Twenty-fifth Anniversary Fund of the Class of 1881.' The use of the income of this fund is to be unrestricted."

From the Class of 1885, $5,588.96, "as a memorial of their deceased classmate, William Henry Baldwin, Jr." This gift is to be held as a permanent fund and known and designated as the "William H. Baldwin Jr. 1885 Fund"; the income thereof is to be used for "the expenses of the publishing by the Department of Economics of Essays on Economic Subjects by students of that Department," and any surplus not needed for that purpose is to be "expended for the purchase and care by the College Library of books and periodicals on economic, political, historical or educational subjects in the order named."

From George F. Fabyan, $75,000, to be added to the George Fabyan Fund in the Medical School, the whole to be called the "George Fabyan Foundation for Comparative Pathology."

From the estate of Richard W. Foster, $12,500, the balance of his bequest of $25,000, unrestricted as to both principal and income.

From Henry L. Higginson, $20,000, an unrestricted gift for the general purposes of the University.

From two anonymous givers, securities valued at $175,000, to be sold under stated conditions and the proceeds to be added to the Nelson Robinson Jr. Fund.

From Frederick Le Roy Sargent, $50, to be added to the Francis James Child Memorial Fund.

From Robert W. Sayles, $5,000, to establish a fund the income of which "is to be expended under the direction of the Department of Geology and Geography or of the Curator of the Geological Section of the University Museum, at Cambridge, Mass., preferably for the acquisition, preparation, and maintenance of collections suitable for a museum of geology."

For the Teachers' Endowment Fund, $1,043,040.93, and securities valued at $60,000, from three hundred and forty-nine contributors.

From the estate of Jerome Wheelock, $10, the third payment of that amount for establishing the Jerome Wheelock Fund of $100,000.

"As the beginning of a fund for the maintenance of the Germanic Museum, to be called the Emperor William Fund, in honor of the German Emperor, and especially to celebrate the twenty-fifth anniversary of His Majesty's wedding," from

Alexander Agassiz	$1,000
James Barr Ames	500
Anonymous	500
Anonymous	500
Mrs. Henry P. Bowditch	100
Alvin Carl	10
Heinrich Conried	500
W. Murray Crane	500
Ellis L. Dresel	50
Charles Ehlermann	100
George Ehret	500
Arthur F. Estabrook	500
Frederick P. Fish	1,000
Germanische Gesellschaft	50
John Hays Hammond	100
Mrs. J. H. Hecht	250
H. V. Hilprecht	25
Otto H. Kahn	5,000
Charles H. Keep	100
David P. Kimball	2,500
Antonio Knauth	25
Knauth, Nachod & Kuhne	100
Mrs. Percival Knauth	25
Hugo A. Koehler	25
Amount carried forward	$13,960
Amount brought forward	$13,960
Gardiner M. Lane	250
William Lawrence	100
E. D. Leavitt	10
Miss Margaret A. Leavitt	10
T. K. Lothrop	200
Mrs. Natalie Nixdorff	25
Mrs. John C. Phillips	100
Hugo Reisinger	50
J. G. Rosengarten	100
A. Lawrence Rotch	100
Edward Ruhl	25
Mortimer L. Schiff	1,000
Carl Schurz	50
Mrs. Gideon Scull	50
A. Shuman	100
Hermann Sielken	1,000
Augustus H. Vogel	100
Felix M. Warburg	1,000
Paul M. Warburg	1,000
Walter Wesselhoeft	50
Mrs. Walter Wesselhoeft	10
John M. Wulfing	25
	$19,315

From the Trustee under the will of George H. Emerson, securities valued at $20,656.20, on account of the principal of

Mr. Emerson's residuary bequest, the income thereof to be used for four scholarships for graduates of the Departments of Zoölogy, Geology, Mineralogy, and Chemistry in the Lawrence Scientific School.

From Charles F. McKim, $20,000, to endow the Julia Amory Appleton Travelling Fellowship in Architecture, established in June, 1904, in accordance with his offer to provide annually one thousand dollars for that fellowship.

From the estate of Miss Eliza W. S. Parkman, $10,000, to establish, in memory of her brother, the "Francis Parkman Fellowship," the income thereof to be applied "to the aid of meritorious students, pursuing advanced studies, whether at the University or elsewhere."

From Miss Frances A. L. Haven, $12,000, to establish, in memory of James Coolidge Carter, the "James Coolidge Carter Loan Fund" in the Law School.

From Charles J. Hughes, Jr., $750, to be added to the Hughes Loan Fund for the benefit of students in the Law School.

From Mrs. Sarah C. Fisher Wellington, $3,500, to establish in the Law School the George Fisher Scholarship, "in memory and in honor of my father, George Fisher."

The total amount of these gifts for capital account is $1,859,298.23, as stated also on page 42.

FOR IMMEDIATE USE.

From an anonymous giver, $40, for expenses in connection with the meeting of the Committee on the Publication of Academic Distinctions.

From two anonymous givers, $50, for a lecture by Professor Kühnemann.

From an anonymous giver, $1,125, to be added to income used for salaries.

From Barrett Wendell, $250, to be devoted to certain extra instruction in the Department of English in 1906–07.

From the estate of Mrs. Mary Hemenway, $500, toward the salary of the Instructor in Central American Archaeology.

From Theodore Lyman, $150, for the salary of an Assistant in Physics.

For the Department of Mining and Metallurgy, to aid instructors and assistants to visit mines and metallurgical establishments at a distance, and to secure lecturers on special subjects, from

Edgar C. Felton	$150
John Hays Hammond	250
Albert F. Holden	150
Hennen Jennings	150
R. Alexander F. Penrose, Jr.	150
Amount carried forward	$850
Amount brought forward	$850
Charles P. Perin	150
Quincy A. Shaw, Jr.	150
Frank H. Taylor	150
Benjamin B. Thayer	150
	$1,450

From James J. Storrow, $790.76, for use at the summer camp at Squam Lake.

From Henry L. Shattuck, $50, toward the general expenses of undergraduate instruction in Harvard College.

From Edwin H. Abbot, $200, in accordance with the terms of his letter of gift, to be added to the income of the Teachers' Endowment Fund.

From James H. Hyde, $600, for the Fellowship of the Cercle Français de l'Université Harvard for 1905–06.

From Charles F. McKim, $1,000, for the Julia Amory Appleton Travelling Fellowship in Architecture for 1905–06.

From the Inter-Municipal Committee on Household Research, $350, towards the Fellowship of the Inter-Municipal Committee on Household Research for 1905–06.

For the South End House Fellowship, from

Julian L. Coolidge	$100
William A. Dupee	25
Edward W. Grew	25
Randolph C. Grew	100
Edward J. Holmes	100
Herbert Lyman	20
	$370

From an anonymous giver, $100, to be used in the same way as the income of Scholarship Funds is used.

From Mrs. C. M. Barnard, $600, her twenty-third yearly gift for the Warren H. Cudworth Scholarships.

From the Harvard Club of Buffalo, $200, for the Scholarship of the Harvard Club of Buffalo for 1905–06.

From the Harvard Club of Chicago, $300, for the Scholarship of the Harvard Club of Chicago for 1905–06.

From the Harvard Club of San Francisco, $450, for the Scholarship of the Harvard Club of San Francisco for 1905–06.

From the Harvard Club of St. Louis, $300, for the Scholarship of the Harvard Club of St. Louis for 1905–06.

From Edward S. Drown, $25, to aid a needy student.

From the Lawrence Scientific School Association, $150, for a Scholarship in Engineering in the summer of 1906.

From Warren Delano, Jr., $250, for a loan scholarship for 1906–07 in the Graduate School of Applied Science.

From Edward Dyer Peters, $250, for a Scholarship in Mining and Metallurgy for 1906–07 in the Graduate School of Applied Science.

From Mrs. Sarah C. Fisher Wellington, $51, to be added to the income of her gift of $3,500, establishing the George Fisher Scholarship in the Law School, so that this scholarship may be awarded in October, 1906.

From an anonymous giver, $350, for the Ricardo Prize Scholarship for 1906–07.

Through A. Lawrence Lowell, $250, as a prize for an essay in the Department of History and Government.

For the purchase of books for the College Library, from

Anonymous	$2.25
Anonymous, for books on English literature of the seventeenth and eighteenth centuries	10
Anonymous, for books on English literature of the seventeenth and eighteenth centuries	20
Anonymous, for books on Dutch history	1,000
Francis R. Appleton, for books on English literature of the seventeenth and eighteenth centuries	250
Hiram Bingham, for books on South America	25
Francis Stanton Blake, for books on English literature of the eighteenth century	250
I. Tucker Burr, for books on Economics	50.00
Alexander Cochrane, for books on Scottish history	1,250
Archibald Cary Coolidge	4,646.19
Harold J. Coolidge, for books on China	50
Ernest B. Dane, for books in English Literature	500
Dante Society, for books for the Dante Collection	150
Ellis L. Dresel, for books on German Drama	50
George H. Earle, Jr., for books on Economics	50
Blair Fairchild, for books on Paris	25
Amount carried forward,	$8,328.44

Amount brought forward,	$8,328.44
James Loeb, for the purchase and binding of labor periodicals	100
Edwin V. Morgan, for books on Corea	8.14
Edwin Stanton Mullins, for books on folk-lore	50
William Phillips, for books on London	100
F. W. Taussig, for books on the earlier literature of Economics	25
John E. Thayer, for books on Economics	50
Charles G. Washburn, for books on the earlier literature of Economics	50
Edgar H. Wells, for books on English literature of the seventeenth and eighteenth centuries	25.80
	$8,737.38

From Mrs. George A. Nickerson, $200, her third yearly gift in memory of her husband, George Augustus Nickerson, A.B. 1876, LL.B. 1879, for the purchase of books on folk-lore, for the College Library.

From the Treasurer of the Phormio Fund, $63.11, towards the cost of a copy of the first edition of the Plays of Aristophanes.

From Dudley L. Pickman, $50, for the purchase of reprints of Contributions from the Zoölogical Laboratory.

From Arthur T. Lyman, $250, for charts, maps, etc., for the Department of Economics.

From members of the Class of 1879, $200, for the Department of Economics, to purchase books for the working library founded by this Class.

Through John F. Moors, $123.39, for the library of the Department of Education.

From the Division of Mathematics, $15, for the library of the Department of Mathematics.

From Reginald C. Robbins, $4,000, for the purchase of books for a Philosophical Library in Emerson Hall.

From the Society for Promoting Theological Education, $1,501.40, "for the purchase of books for the Library of the Divinity School, and for the administration of said Library."

From Mrs. James Munson Barnard, $2,000, for the purchase of books for the Law School Library.

From Archibald Cary Coolidge, $1,692.69, for the College Library, to provide special assistance, including the services of a purchasing agent in Europe.

From Mrs. G. H. Shaw, $1,000, for special services in the College Library.

From K. G. T. Webster, $47, to cover the expense of keeping the libraries in Warren House open in the evening from May first to the end of the term.

For the salary of a librarian for the library of the Division of Music and for books, from

Percy L. Atherton	$10
W. K. Brice	25
F. S. Converse	10
Ernest O. Hiler	5
Edward B. Hill	5
Amount carried forward	$55
Amount brought forward	$55
H. A. Lamb	15
Philip L. Spalding	5
Walter R. Spalding	5
	$80

From members of the Class of 1872, $173.72, to pay for changes in the clock in the tower of Memorial Hall.

From Mr. and Mrs. Nelson Robinson, $2,500, for the additional equipment of Nelson Robinson Jr. Hall.

From Mrs. Henry Draper, of New York, $10,000 additional, to be spent by the Director of the Observatory in prosecuting the researches in the photography of stellar spectra with which the late Dr. Henry Draper's name is honorably associated.

From E. C. Pickering, $5,500, to be added to the unrestricted income of the Observatory.

For the Museum of Classical Archaeology, from

Henry B. Chapin	$100
Mrs. Schuyler Van Rensselaer	200
	$300

From Edwin F. Atkins, $1,000, additional, for "the study of the improvement of sugar-cane and other tropical plants," for further plant collections and for travelling expenses connected therewith.

For the Botanic Garden and the Botanic Museum, from

Anonymous	$500
Anonymous	1,000
Arthur F. Estabrook	1,000
Walter Hunnewell	1,000
Mrs. Henry Lee	500
Thomas E. Proctor	200
	$4 200

r the Gray Herbarium, from

Agassiz	$10
Barr Ames	10
ary S. Ames	10
mous	10
mous	25
mous	150
mous	2,000
d P. Arnold	25
r C. Baylies	10
Bent	10
rthur W. Blake	10
m P. Blake	10
. E. Blatchford	5
C. Braman	5
. L. Bremer	10
Brewer	10
m Brewster	10
n Brown	10
n Bullard	10
Burr	10
C.	10
ames B. Case	50
s F. Choate	10
ora H. Clarke	10
ouise H. Coburn	10
d Mrs. James M. Codman	10
elen Collamore	10
harles A. Cummings	10
s P. Curtis	10
harles P. Curtis	10
P. Curtis	10
ames F. Curtis	5
Curtis	10
l B. Dana	10
A. Day	25
r Deane	15
Dexter	10
m S. Dexter	10
m Endicott	10
m Endicott, Jr.	10
m Farnsworth	25
ay, Jr.	25
. N. Fiske	10
Fletcher	10
s B. Forbes	10
s A. Foster	10
s C. Foster	10
unt carried forward	$2,705

Amount brought forward	$2,705
Mrs. Francis C. Foster	10
Miss Harriet E. Freeman	10
Miss C. A. French	10
Robert H. Gardiner	10
George A. Goddard	10
Miss Harriet Gray	10
Mrs. H. S. Grew	10
T. W. H.	10
George W. Hammond	20
Augustus Hemenway	10
Miss Clara Hemenway	10
Miss A. P. Henchman	10
J. P. B. Henshaw	10
T. W. Higginson	5
Mr. and Mrs. R. C. Hooper	20
Miss Katharine Horsford	25
Clement S. Houghton	10
Henry S. Howe	10
Mrs. Arthur Hunnewell	100
Henry S. Hunnewell	10
Walter Hunnewell	10
William A. Jeffries	10
Bernard Jenney	10
B. M. Jones	10
George G. Kennedy	500
Charles A. Kidder	25
David P. Kimball	10
Mrs. David P. Kimball	10
H. H. Kimball	10
L. C. Kimball, Jr.	10
The Misses Kimball	20
Mrs. Harriet M. Laughlin	10
George C. Lee	10
Joseph R. Leeson	200
George V. Leverett	25
Mrs. George Linder	10
Miss Katharine P. Loring	10
Miss Louisa P. Loring	10
William Caleb Loring	10
Mrs. T. K. Lothrop	10
Mrs. George G. Lowell	10
Arthur T. Lyman	10
Haslett McKim	10
Mrs. Gilbert N. McMillan	10
Miss E. F. Mason	10
Miss Fanny P. Mason	10
Amount carried forward	$4,005

Amount brought forward . .	$4,005
Charles Merriam	10
Miss Susan Minns	50
Mrs. S. T. Morse	10
Nathaniel C. Nash	10
Grenville H. Norcross	10
Mrs. Otis Norcross	10
Mrs. Otis Norcross, Jr.	10
Peder Olsen	10
Mrs. Henrietta Page	25
Miss Mary R. Peabody	10
Mrs. J. C. Phillips	25
Henry Pickering	10
Mrs. Henry Pickering	10
Mrs. D. L. Pickman	10
David Pingree	10
Laban Pratt	10
Mr. and Mrs. George Putnam	25
Miss Elizabeth C. Putnam	5
Miss Sarah E. Read	10
Mrs. William Howell Reed	10
George E. Richards	10
Samuel W. Rodman	10
Denman W. Ross	10
Mrs. M. Denman Ross	10
Mrs. Waldo O. Ross	10
J. E. Rothwell	10
Mrs. R. S Russell	10
George O. Sears	10
Mrs. K. W. Sears	10
Francis Shaw	10
Amount carried forward . .	$4,385
Amount brought forward . .	$4,385
Mrs. G. H. Shaw	10
Mrs. Quincy A. Shaw	20
David N. Skillings	10
Francis Skinner	10
Francis P. Sprague	10
Nathaniel H. Stone	10
John E. Thayer	200
Charles H. Tweed	10
B. Vaughan	10
Miss Cornelia Warren	10
Samuel D. Warren	10
Benjamin M. Watson	10
Frank G. Webster	20
Mrs. Frank G. Webster	20
Mrs. Charles W. Welch	10
S. M. Weld	25
Mrs. Charles T. White	10
George R. White	200
S. B. Whiting	10
George Wigglesworth	10
Miss Adelia C. Williams	10
Emile F. Williams	100
John D. Williams	20
Moses Williams	100
Ralph B. Williams	100
Samuel H. Winkley	10
Mrs. Charlotte F. Woodman	10
Miss Mary Woodman	10
John G. Wright	10
	$5,380

For the Peabody Museum of American Archaeology and Ethnology, from

A friend	$100
Mrs. N. E. Baylies	25
Clarence B. Moore	500
	$625

From a graduate of the University, $416.66, the first instalment on account of his offer of $15,000 towards the expenses of the South American Expedition undertaken by the Peabody Museum of American Archaeology and Ethnology.

From an anonymous giver, $200, to provide for opening the Germanic Museum on Sunday and Thursday afternoons.

From Alexander Cochrane, $500, for the Germanic Museum.

From Jacob H. Schiff, $1,593.56, toward the purchase of the J. Rendel Harris collection of Syriac manuscripts for the Semitic Museum.

For the purchase of collections for the Semitic Museum, from

Jacob E. Ackerman	$10
Abraham Asher	10
Mrs. J. B. Ames	50
N. L. Amster	25
Solomon Bacharach	10
Louis Baer	25
William A. Bancroft	25
Robert Batcheller	25
Gabriel Beekman	5
William Bloom	10
Mr. and Mrs. Louis D. Brandeis	25
E. S. C.	200
David H. De Boer	10
Lemuel E. Demelman	5
Carl Dreyfus	10
Jacob Dreyfus & Sons	25
Albert Eisemann	50
Julius Eisemann	50
Ludwig Eisemann	20
Nathan Eisemann	20
David A. Ellis	25
A. F. Estabrook	100
Abraham L. Fishel	5
Mrs. W. Scott Fitz	100
Mrs. Francis C. Foster	300
Daniel Frank	25
S. Frank Frankenstein	5
A friend	25
Simon Goldsmith	25
Edward S. Goulston	5
Mrs. Henry S. Grew	200
Mrs. Jacob H. Hecht	100
Louis Hecht, Jr.	25
Simon E. Hecht	10
Summit L. Hecht	50
Jacob Heilborn	10
Joseph M. Herman	25
Louis Hyneman	10
Carl J. Kaffenburgh	5
Isaac Kaffenburgh	50
Mr. and Mrs. David P. Kimball	450
The Misses Kimball	100
Amount carried forward	$2,260
Amount brought forward	$2,260
Abraham Koshland	50
Jesse Koshland	50
Joseph Koshland	50
Simon L. Lehrburger	10
Adolph Leve	5
Harry Liebmann	20
Joseph H. Liebmann	10
Alfred N. Luchs	5
Arthur T. Lyman	100
George S. Mandell	25
Robert S. Morison	10
Godfrey Morse	20
Julius C. Morse	10
Moses M. Morse	5
John Wells Morss	100
Henry W. Peabody	100
The Misses Peabody	50
J. Peavy & Brothers	25
Isidor Phillips	5
Mrs. Henry Pickering	500
Lehman Pickert	10
H. L. Rice	25
Samuel Rosenberg	25
Jacob H. Schiff	5,000
A. Shuman & Co.	50
Sidney E. Shuman	10
E. W. Stix	5
Ferdinand Strauss	25
Louis Strauss	25
Charles B. Strecker	25
S. L. Swarts	10
Felix Taussig	10
Felix Vorenberg	10
Simon Vorenberg	10
Charles Weil	25
Isaac Weil	10
Asher A. White	5
William Whitman	100
George Wigglesworth	200
Bernard M. Wolf	25
Mrs. Henry Woods	1,000
	$10,015

From William Barbour, $5,000, for the Museum of Comparative Zoölogy.

Through Thomas Dwight, $360, for original investigation in the Department of Anatomy.

From an anonymous giver, $500, for salaries of Instructors in the Department of Anthropology.

From W. H. Walker, $500, to be spent under the direction of Professor Harold C. Ernst for the Bacteriological Laboratory.

From Mrs. Hartman Kuhn, $1,000, for salaries in the Department of Biological Chemistry.

For the equipment of the laboratory for Biological Chemistry, from

Arthur T. Cabot	$650
Mrs. Hartman Kuhn	650
	$1,300

From John E. Thayer, $500, for the Bermuda Biological Station for Research.

From an anonymous giver, $250, for the salary of a secretary for the Caroline Brewer Croft Cancer Committee.

From Charles S. Minot, $30, for specimens for the Embryological Laboratory.

From Miss Katherine E. Bullard and William N. Bullard, $500 each, their fourth gifts of the same amount, to be used under the direction of the Shattuck Professor of Pathological Anatomy, with the approval of the President and Fellows, for the purpose of advancing the knowledge of the pathology of the nervous system.

From James J. Putnam and Moorfield Storey, trustees, $500, for a salary and for expenses in the Department of Neuropathology.

For the library of the Department of Pathology, from

Charles L. Bauscher	$100
J. A. Lowell Blake	100
John B. Gerrish	100
Miss Mollie C. Maxwell	25
Henry F. Sears	500
	$825

From John C. Phillips, $500, for the Department of Pathology.

From Morrill Wyman, $1,000, for research in the Department of Pathology.

From the estate of Mrs. Mary Hemenway, $200, to be used in the Department of Physiology under the direction of Professor W. T. Porter.

From Francis Stanton Blake, $100, for the Surgical Laboratory.

From an anonymous giver, $50, toward the expenses in the Department of Theory and Practice in the Medical School.

From Robert Winsor, $1,250, for the payment of a salary in the Medical School.

For the Medical School Undertaking, from J. Pierpont Morgan, $249,000 additional, on account of his offer for the erection of three Halls in memory of his father, Junius Spencer Morgan.

For the purchase of land, the erection of buildings, or the endowment of education and research, for the benefit of the Dental School, from

Mrs. W. W. Blackmar	$100
Shepherd Brooks	1,000
T. Jefferson Coolidge	500
T. Jefferson Coolidge, Jr.	500
William S. Dexter	200
John T. Morse, Jr.	200
Amount carried forward	$2,500
Amount brought forward	$2,500
Mr. and Mrs. Henry Pickering	1,000
Seventy-one anonymous givers, additions to the Harvard Dental Alumni Fund amounting to	1,614.31
	$5,114.31

For construction expenses at the Arnold Arboretum, from

A. S. Bigelow	$100
Frank A. Day	100
Mrs. Mabel H. Slater	100
Charles E. Stratton	100
Bayard Thayer	5,000
George R. White	500
	$5,900

From the Massachusetts Society for Promoting Agriculture, $1,375, "to be expended at the Arnold Arboretum by the Director, to increase the knowledge of trees."

From the Committee on the Regulation of Athletic Sports, $10,000, to be added to its previous gifts for improvements upon, and additions to, The Soldier's Field, to be made by said Committee, with the approval of the Corporation.

The total amount of these gifts for immediate use is $358,819.98, as stated also on page 40.

CHARLES F. ADAMS, 2D, *Treasurer.*

BOSTON, October 31, 1906.

General Statement of Receipts and Disbursements for the year ending

INCOME.

Interest on notes, mortgages, advances, &c.,		$137,815.99
Interest on Policies of Mass. Hospital Life Insurance Co.,		849.00
Interest on Bank Deposits.		
Deposit in Adams Trust Co.,	$1,181.73	
" American Loan and Trust Co.,	180.54	
" City Trust Co.,	139.30	
" Equitable Trust Co.,	1,132.05	
" Merchants National Bank,	134.38	
" National Shawmut Bank,	35.31	
" National Union Bank,	259.28	
" Old Boston National Bank,	1,596.88	4,659.47
Interest on Public Funds (after deducting $185.73 for sinking premiums).		
City of Boston 3½'s of 1920,	$350.00	
Imperial Japanese 4½'s of 1925,	588.52	
Massachusetts 3½'s of 1913,	1,185.25	
" " " 1916,	154.15	
" " " 1935,	161.29	
" " " 1938,	129.14	
United States of Mexico 4's of 1954,	4,000.00	6,568.35
Interest on Railroad Bonds (after deducting $4,460.35 for sinking premiums).		
Baltimore & Ohio 4's,	$4,000.00	
" " (P.L.E.&W.V. system) Ref. 4's,	4,000.00	
" " So. Western 3½'s,	3,500.00	
Bangor & Aroostook Ref. 4's,	5,000.00	
Burlington & Mo. River in Neb. 6's,	12,714.00	
Central Vermont 4's,	1,740.00	
Chicago & Alton 4's,	1,541.66	
Chicago, Burlington & Quincy 4's,	120.00	
" " " Ill. Div. 4's,	7,977.78	
" " " 3½'s,	15,243.80	
Chicago & No. Western Gen. M. 3½'s,	3,488.23	
Chicago, Rock Island & Pacific 4's,	3,920.90	
Eastern 6's,	11,127.25	
Eastern sterling 6's,	6,678.93	
Indiana, Illinois & Iowa 4's,	4,000.00	
Kansas City, Fort Scott & Memphis 6's,	10,646.89	
Kansas City, Memphis & Birmingham Income 5's,	5,700.00	
Kansas & Missouri 5's,	2,700.00	
Lake Shore & Michigan Southern 4's,	4,000.00	
Long Island Unified 4's,	12,000.00	
Louisville & Jeffersonville Bridge 4's,	8,000.00	
Minneapolis Union 5's,	4,866.83	
Amounts carried forward,	$132,966.27	$149,892.81

EXPENSES.

Paid to account of expenses in the

University, as per Table I (page 75).		
Salaries,	$45,989.31	
Retiring Allowances,	25,774.14	
Peabody Museum of American Archaeology and Ethnology (part, see Table XIV, page 116),	1,248.32	
Semitic Museum (part, see Table XV, page 117),	1,778.82	
Germanic Museum (part, see Table XVI, p. 118),	332.72	
William Hayes Fogg Art Museum (part, see Table XVII, page 119),	2,772.49	
Appleton Chapel (part, see Table XIX, page 120),	6,412.53	
Phillips Brooks House (part, see Table XX, page 121),	1,829.41	
Other expenses,	43,825.10	$129,962.84
College, as per Table II (page 79).		
Salaries for instruction,	$497,640.72	
Sundry salaries,	14,884.00	
Expenses on College Public Buildings, which are not valued in the Treasurer's books,	34,719.37	
Expenses on College Dormitories, which are not valued in the Treasurer's books,	40,906.64	
General expenses,	69,447.20	
Fellowships,	27,687.50	
Scholarships,	51,527.66	
Loans and other aid to students,	31,372.96	
Prizes and expenses,	3,378.40	
Museum of Comparative Zoölogy (part, see Table XIII, page 115),	3,877.50	
Jefferson Physical Laboratory (part, see Table XVIII, page 120),	718.11	
Hemenway Gymnasium (part, see Table XXI, page 122),	6,306.40	
Summer Schools,	24,916.82	
Books, from special Funds and gifts,	5,454.42	
Apparatus and expenses for research, from special Funds and gifts,	4,788.72	
Publication expenses, from special Funds and gifts,	8,934.66	
Sundry payments from special Funds and gifts,	45,938.50	
Appropriations for collections and laboratories,	32,498.95	904,998.53
Library, as per Table III (page 97).		
Salaries,	$17,675.00	
Services and wages,	21,524.41	
Books,	27,473.64	
Other expenses,	11,774.65	78,447.70
Amount carried forward,		$1,113,409.07

General Statement of Receipts and Disbursements for the year ending

INCOME (*continued*).

Amounts brought forward, ...	$132,966.27	$149,892.81
Interest on Railroad Bonds (*continued*).		
Missouri Pacific 5's, ...	5,000.00	
Montana Central 6's, ...	4,432.53	
New York Central & H. R. 3½'s (L. S. & M. S. Coll.),	10,500.00	
New York Central & H. R. 3½'s (M. C. Coll.), . .	1,190.00	
New York, New Haven & Hartford 4's, ...	3,875.00	
New York, Ontario & Western 4's, ...	7,884.13	
Northern Pacific–Great Northern Joint 4's, ...	18,325.00	
Oregon Short Line 5's, ...	4,583.03	
Oregon Short Line 4's, ...	4,000.00	
Pennsylvania Co. 3½'s, ...	2,765.00	
Pennsylvania Co. 4½'s, ...	1,125.00	
Richmond–Washington Co. 4's, ...	6,307.02	
Rutland Car Trust 4½'s, ...	2,250.00	
St. Louis & San Francisco Ref. 4's, ...	4,000.00	
St. Paul, Minneapolis & Manitoba 4's, ...	7,535.89	
Southern Pacific 4's, ...	3,875.00	
Terminal R. R. Association of St. Louis 4's, . . .	8,000.00	
Union Pacific 4's, ...	18,000.00	
Wisconsin Central, Minneapolis Terminal Purchase Money M 3½'s, ...	1,750.00	248,363.87
Interest on Traction Bonds (after deducting $765.82 for sinking premiums).		
Boston & Northern 4's, ...	6,000.00	
Interborough Rapid Transit 4's, ...	7,333.33	
Metropolitan West Side Elevated 4's, ...	4,200.00	
" " " Extension 4's, .	4,000.00	
Old Colony Street 5's, ...	6,000.00	
Public Service Corporation of New Jersey 5's, . .	5,000.00	
Schenectady 4½'s, ...	4,371.79	
Second Avenue 5's, ...	4,605.26	
Third Avenue 4's, ...	7,975.31	
United Traction & Electric Co. 5's, ...	2,031.82	51,517.51
Interest on Sundry Bonds (after deducting $3,999.22 for sinking premiums).		
American Bell Telephone Co. 4's, ...	$10,162.71	
American Tel. & Tel. Co. 4's, ...	8,000.00	
American Tel. & Tel. Co. 5's, ...	5,163.20	
Boston Electric Light Co. 5's, ...	2,306.62	
Broadway Realty Co. 5's, ...	10,332.03	
Butte Water Co. 5's, ...	250.00	
Chicago Edison Co. 5's, ...	4,709.60	
Amounts carried forward, . . .	$40,924.16	$449,774.19

EXPENSES (*continued*).

Amount brought forward,		$1,113,409.07
Divinity School, as per Table IV (page 100).		
Salaries for instruction,	$31,713.85	
Scholarships, Exhibitions, and Prizes,	2,226.66	
Other expenses,	9,871.97	43,812.48
Law School, as per Table V (page 102).		
Salaries for instruction,	$55,383.33	
Librarians and assistants,	10,072.26	
Scholarships and loans,	7,575.00	
Other expenses,	26,491.03	99,521.62
Medical School, as per Table VI (page 104).		
Salaries for instruction,	$83,041.67	
Fees repaid to Instructors,	9,160.00	
Retiring allowance,	1,000.00	
Fellowships,	2,765.00	
Scholarships,	4,654.52	
Expenses connected with prize,	12.50	
Warren Anatomical Museum,	1,112.31	
Books, from special Funds and gifts,	949.03	
Sundry payments made from special Funds and gifts,	8,991.85	
Laboratory appropriations,	12,712.95	
Other expenses,	28,260.46	152,660.29
Medical School Undertaking, as per Table XXIII (page 126).		
Building expenses,	$641,235.51	
Interest on advances to real estate,	15,395.15	
Other expenses,	1,849.08	658,479.74
Dental School, as per Table VII (page 109).		
Salaries for instruction,	$8,550.00	
Other expenses,	15,168.28	23,718.28
Bussey Institution, as per Table VIII (page 110).		
Salaries for instruction,	$8,200.00	
Other expenses,	9,037.90	17,237.90
Arnold Arboretum, as per Table IX (page 111).		
Salaries,	$3,500.00	
Books from gifts,	3,280.18	
Other expenses,	22,386.35	29,166.53
Botanic Garden and **Botanic Museum,** as per Table X (page 112).		
Services and wages,	$437.00	
Labor,	5,057.19	
Other expenses,	5,226.15	10,720.34
Amount carried forward,		$2,148,726.25

INCOME (*continued*).

Amounts brought forward, . . .	$40,924.16	$449,774.19
Interest on Sundry Bonds (*continued*).		
Chicago Junc. Railways & Union Stock Yards Co. 5's,	14,979.85	
Chicago Junc. Railways & Union Stock Yards Co. 4's,	4,000.00	
Detroit Edison Co. 5's, ...	3,569.71	
Girard Point Storage Co. 3½'s, ...	691.52	
Laclede Gas Light Co. 5's, ...	1,000.00	
Metropolitan Tel. & Tel. Co. 5's, ...	7,500.00	
Mexican Coal & Coke Co. 5's, ...	300.00	
Minneapolis General Electric Co. 5's, ...	4,915.26	
Montreal Light, Heat and Power Co. 4½'s, ...	4,466.66	
Municipal Gas & Electric Co. 4½'s, ...	4,500.00	
New England Tel. & Tel. Co. 6's, ...	7,128.95	
" " " 5's, ...	4,058.82	
Portland General Electric Co. 5's, ...	4,605.56	
Railway & Light Securities Co. 5's, ...	1,780.37	
St. Louis National Stock Yards Co. 4's, ...	5,976.39	
United States Steel Corporation 5's, ...	1,600.00	
Wood Worsted Mills 4½'s, ...	975.00	112,972.25
Dividends on Railroad Stocks.		
Boston & Albany, ...	$24.50	
Boston & Lowell, ...	2,880.00	
Boston & Maine, ...	1,330.00	
Chicago & Northwestern, ...	5,162.50	
Fitchburg, preferred, ...	1,185.00	
Great Northern, preferred, ...	1,648.50	
Manhattan, ...	4,900.00	
New York Central & Hudson River, ...	6,647.50	
New York, New Haven & Hartford, ...	3,344.00	
Northern (N. H.), ...	1,740.00	
Old Colony, ...	2,535.75	
Pennsylvania, ...	16,434.00	
West End Street, preferred, ...	208.00	48,039.75
Dividends on Manufacturing and Telephone Stocks.		
American Telephone & Telegraph Co., ...	$12,750.00	
American Smelters' Securities Co., preferred, . .	10,000.00	
Amoskeag Manufacturing Co., ...	1,200.00	
Brookside Mills, ...	175.00	
Pacific Mills, ...	4,160.00	28,285.00
Dividends on Real Estate Trust Stocks.		
Barristers Hall Trust, ...	$3,089.92	
Boston Real Estate Trust, ...	1,260.00	
Central Building Trust, ...	100.00	
Department Store Trust, ...	5,000.00	
Essex Street Trust, ...	3,000.00	
Amounts carried forward, ...	$12,449.92	$639,071.19

of the Treasurer of Harvard College,
July 31, 1906.

EXPENSES (*continued*).

Amount brought forward, ...		$2,148,726.25
Gray Herbarium, as per Table XI (page 113).		
Salaries, ...	$4,308.33	
Services and wages, ...	2,438.13	
Other expenses, ...	4,578.74	11,325.20
Observatory, as per Table XII (page 113).		
Salaries, ...	$17,100.00	
Services and wages, ...	7,156.11	
Other expenses, ...	34,366.09	58,622.20
Museum of Comparative Zoölogy, as per Table XIII (page 115).		
Salaries, ...	$10,475.00	
Services and wages, ...	3,395.00	
Sturgis Hooper Fund, salary and expenses, . .	5,895.45	
Scholarship, ...	250.00	
Other expenses, ...	22,175.15	
	$42,190.60	
Less amount paid from College income (see Table II, page 94), ...	3,877.50	38,313.10
Peabody Museum of American Archaeology and Ethnology, as per Table XIV (page 116).		
Peabody Professor Fund, **Peabody** Professor and Curator, ...	$2,422.15	
Services and wages, ...	2,456.87	
Fellowships and scholarships, ...	1,778.19	
Other expenses, ...	5,191.11	
	$11,848.32	
Less amount paid from University income (see Table I, page 77), ...	1,248.32	10,600.00
Semitic Museum, as per Table XV (page 117).		
Curator, ...	$500.00	
Collections, ...	6,781.62	
Excavations in Palestine, ...	1,500.00	
Other expenses, ...	1,278.82	
	$10,060.44	
Less amount paid from University income (see Table I, page 77), ...	1,778.82	8,281.62
Germanic Museum, as per Table XVI (page 118).		
General expenses, ...	$850.96	
Less amount paid from University income (see Table I, page 77), ...	332.72	518.24
Amount carried forward, ...		$2,276,386.61

General Statement of Receipts and Disbursements for the year ending

INCOME (*continued*).

Amounts brought forward, ...			$12,449.92	$639,071.19
Dividends on Real Estate Trust Stocks (*continued*).				
Hotel Trust, ...			62.50	
Kimball Building Trust, ...			2,250.00	
Municipal Real Estate Trust, ...			10.93	
Paddock Building Trust, ...			4,161.50	
Post Office Square Building Trust, ...			3,000.00	21,934.85
Dividends on Sundry Stocks.				
Boatmen's Bank of St. Louis, ...			$517.50	
Calumet & Hecla Mining Co., ...			825.00	
Laclede Gas Light Co., preferred, ...			1,000.00	
Massachusetts Gas Companies, preferred, ...			6,000.00	8,342.50
Real Estate Investments, from rents, &c., net receipts.				
Cambridge (University Houses and Lands).				
Gross receipts, ...		$41,188.15		
Less Taxes, ...	$6,604.40			
Insurance, ...	939.35			
Repairs, improvements, care, &c., ...	14,620.05	22,163.80	$19,024.35	
Boston (general investments).				
Gross receipts, ...		$211,287.64		
Less Taxes, ...	$46,518.68			
Insurance, ...	4,993.74			
Repairs, improvements, care, &c., ...	3,307.06			
Repaid to capital, . . .	6,745.79	61,565.27	149,722.37	
Bussey real estate.				
Gross receipts, ...		$60,589.02		
Less Taxes, ...	$14,590.40			
Insurance, ...	4,494.29			
Interest, ...	11,387.23			
Repairs, improvements, care, &c., ...	8,091.68			
Heat and power, . . .	4,000.78			
Repaid to capital, . . .	1,000.00	43,564.38	17,024.64	
Sundry estates (special investments).				
Gross receipts, ...		$15,318.49		
Less Taxes, ...	$3,380.64			
Insurance, ...	730.76			
Interest, ...	183.43			
Repairs, improvements, care, &c., ...	3,288.02	7,582.85	7,735.64	193,507.00
Amount carried forward, ...				$862,855.54

EXPENSES (*continued*).

Amount brought forward, ...			$2,276,386.61
William Hayes Fogg Art Museum, as per Table XVII (page 119).			
Salaries, ...		$1,000.00	
Collections, ...		886.45	
Other expenses, ...		6,272.87	
		$8,159.32	
Less amount paid from University income (see Table I, page 77), ...		2,772.49	5,386.83
Jefferson Physical Laboratory, as per Table XVIII (page 120).			
Research expenses, from Funds and gift, ...		$2,136.76	
Other expenses, ...		4,524.54	
		$6,661.30	
Less amount paid from College income (see Table II, page 94), ...		718.11	5,943.19
Appleton Chapel, as per Table XIX (page 120).			
Salaries, ...		$5,607.95	
Choir, ...		1,600.00	
Other expenses, ...		1,623.59	
		$8,831.54	
Less amount paid from University income (see Table I, page 77), ...		6,412.53	2,419.01
Phillips Brooks House, as per Table XX (page 121).			
Salaries, ...		$700.00	
Other expenses, ...		2,584,63	
		$3,284.63	
Less amount paid from University income (see Table I, page 77), ...		1,829.41	1,455.22
Hemenway Gymnasium, as per Table XXI (page 122).			
Salaries, ...		$5,000.00	
Other expenses, ...		6,122.09	
		$11,122.09	
Less the following items: —			
Paid from College income (see Table II, page 94), ...	$6,306.40		
Paid from Divinity School income (see Table IV, page 102), . . .	82.86		
Paid from Law School income (see Table V, page 104), ...	1,605.71	7,994.97	3,127.12
Amount carried forward, ...			$2,294,717.98

INCOME (*continued*).

Amount brought forward, ...			$862,855.54
Receipts from Students.			
Tuition fees, regular courses.			
College, ...	$395,932.50		
Divinity School, ...	5,385.00		
Law School, ...	107,090.00		
Medical School, ...	53,468.75		
Dental School, ...	10,535.00		
Bussey Institution, ...	3,570.00		
School for Social Workers, ...	370.00	$576,351.25	
Tuition fees, Summer courses.			
College, ...	$20,277.50		
Divinity School, ...	1,020.00		
Medical School, ...	9,897.00		
Dental School, ...	450.00	31,644.50	
Laboratory fees.			
College, ...	$33,972.96		
Medical School, ...	2,518.50		
Dental School, ...	4,502.44	40,993.90	
Examination fees.			
College. Admission, ...	$4,779.52		
Condition, make-up, and advanced standing, .	2,100.00		
Doctor of Philosophy, .	60.00		
Medical School, ...	258.00		
Dental School, ...	334.00	7,531.52	
Graduation fees.			
College, ...	$7,560.00		
Medical School, ...	2,280.00	9,840.00	
Matriculation fees, Medical School, ...		375.00	
Rooms in dormitories.			
College buildings, ...	$92,936.03		
Less receipts from students, separately entered in University Houses and Lands account, ...	15,897.50		
	$77,038.53		
Divinity Hall, ...	2,872.30	79,910.83	
Library fines.			
Library, ...	$404.22		
Divinity School, ...	7.60	411.82	
Amounts carried forward, ...		$747,058.82	$862,855.54

f the Treasurer of Harvard College,
uly 31, 1906.

EXPENSES (*continued*).

Amount brought forward,			$2,294,717.98
tillman Infirmary, as per Table XXII (page 123).			
Services and wages,		$6,183.67	
Food and supplies,		5,969.35	
Other expenses,		8,104.29	20,257.31
nnuities from the following Funds.			
Advancement of Astronomical Science (1901),		$2,460.00	
" " " " (1902),		643.08	
Bussey Trust,		4,000.00	
Caroline Brewer Croft,		2,263.81	
Gurney,		1,000.00	
Henry S. Nourse,		1,000.00	
Professorship of Hygiene,		3,564.57	
George Smith,		900.00	
Alexander W. Thayer,		480.00	
Charles Wilder,		1,968.00	18,279.46
lass Funds.			
Paid the Secretary of the **Class of 1853,**		$149.00	
Paid the Secretary of the **Class of 1856,**		369.00	518.00
undry payments.			
Edward W. Codman Fund.			
Real estate in Nahant.			
Taxes,	$112.50		
Other expenses,	5.00	$117.50	
Calvin and **Lucy Ellis** Fund, taxes,		123.29	
" " " Aid Fund, legal services,		10.00	
Eaton Professorship Fund, legal expenses,		36.25	
George H. Emerson Scholarship Fund.			
Taxes,	$110.68		
Other expenses,	25.89	136.57	
Henry Flynt Fund, legal services,		15.00	
Charles L. Hancock Fund, taxes on Chelsea real estate,		89.00	
Insurance and Guaranty Fund.			
Sewer assessment, Lucas St., Boston,	$38.48		
Less receipts,	16.80	21.68	
Henry S. Nourse Fund, expenses,		21.80	
George Smith Bequest, rent of safe,		25.00	
Daniel Williams Fund, for the benefit of the Masphee and Herring Pond Indians,		810.90	
Sarah Winslow Fund, to the Minister and the Teacher at Tyngsborough, Mass.,		230.21	
Amounts carried forward,		$1,637.20	$2,333,772.75

General Statement of Receipts and Disbursements for the year ending

INCOME (*continued*).

Amounts brought forward, ...		$747,058.82	$862,855.54
Receipts from Students (*continued*).			
Stillman Infirmary.			
Annual fees, ...	$14,204 00		
Receipts from patients, ...	4,727.48	18,931.48	
Use of Microscopes.			
Medical School, ...	$283.00		
Dental School, ...	10.00	293.00	
Use of lockers, Hemenway Gymnasium, ...		2,959.00	
Summer School excursions, surplus, ...		78.84	
Locker deposits unredeemed, Law School, . . .		89.00	
Deposits for keys to Department Libraries. . . .		54.12	769,464.26
Sundries.			
Professorship of Hygiene, from Trustees, ...		$672.89	
Asa Gray's copyrights, ...		776.79	
Trustee of **George H. Emerson** estate, . . .		148.99	
Trustee of **Charles L. Hancock** real estate, .		774.11	
Trustees of **Edward Hopkins**, ...		208.86	
Sale of grass, wood, old material, &c., ...		5,868.98	
" old examination papers, ...		497.04	
" tickets to Commencement Lunch, ...		372.50	
" tickets to Divinity School Alumni Dinner, .		52.00	
" books, pamphlets, catalogues, &c., ...		9,323.92	
" slides and photographs, ...		60.00	
" apparatus, ...		339.02	
Board of horses, cattle, &c., at **Bussey** Institution,		4,724.49	
Use of Library by resident graduates and others, .		95.00	
" Gymnasium by graduates and others, . . .		168.12	
" Buildings (not Univ. Houses and Lands), .		6,448.70	
Advertising in Medical School publications, . . .		375.00	
Fees in Infirmary, Dental School, ...		6,105.10	
Mary L. Whitney Scholarship, from the Executor of the will of **C. L. B. Whitney**, ...		65.00	
Engineering camp at Squam Lake, ...		11,290.42	
Fire insurance award on property not held as an investment, ...		896.00	
Loans in place of income for research in Physics,		3,325.00	
Heat and power to the House of the Good Samaritan, ...		2,020.35	54,108.28
Total amount of income, excluding gifts, . . .			$1,686,428.08
Gifts for immediate use (see page 29), ...			358,819.98
Amount carried forward, ...			$2,045,248.06

of the Treasurer of Harvard College,
July 31, 1906.

EXPENSES (*continued*).

Amounts brought forward, ...	$1,687.20	$2,333,772.75
Sundry payments (*continued*).		
Woodland Hill Fund, taxes on Muddy River land, and other expenses, ...	1,282.17	
Gifts for Cuban Teachers, expenses, ...	115.00	3,084.37
Construction Funds.		
Emerson Hall, ...	$54,945.14	
Langdell Hall, ...	16,530.25	
Semitic Building, ...	4.83	
John Simpkins Laboratories, Department of Mining and Metallurgy, ...	127.70	
Stadium, and improvements at The Soldier's Field,	2,779.24	
Stillman Infirmary, ...	2,313.21	76,700.37
Total amount of expenses, ...		$2,413,507.49

Amount carried forward, ...	$2,413,507.49

General Statement of Receipts and Disbursements for the year ending

Amount brought forward, ...		$2,045,248.06

RECEIPTS EXCLUSIVE OF INCOME.

GIFTS FOR CAPITAL ACCOUNT.

Julia Amory Appleton Fellowship Fund, . .	$20,000.00	
Arnold Arboretum Fund (additional), ...	885.00	
Daniel Austin Fund (College) (additional), . .	1,576.86	
" " " (Divinity Sch.) (additional),	225.26	
William H. Baldwin Jr. 1885 Fund, ...	5,588.96	
William H. Baldwin Jr. Bequest, ...	2,000.00	
Bullard Professorship of Neuropathology Fund, .	50,000.00	
James C. Carter Fund (University), ...	100,000.00	
" " Professorship Fund (Law Sch.),	100,000.00	
James Coolidge Carter Loan Fund, . . .	12,000.00	
Francis James Child Memorial Fund (add'l),	50.00	
Fund of the **Class of 1846** (additional), ...	130.02	
Book Fund of the **Class of 1881**, ...	3,500.00	
Twenty-fifth Anniversary Fund of the **Class of 1881**, ...	88,570.00	
George H. Emerson Scholarship Fund (add'l),	20,656.20	
George Fabyan Foundation for Comparative Pathology (additional), ...	75,000.00	
George Fisher Scholarship Fund, ...	3,500.00	
Richard W. Foster Fund (additional), . . .	12,500.00	
Henry L. Higginson Fund, ...	20,000.00	
Hughes Loan Fund (additional), ...	750.00	
Francis Parkman Fellowship Fund, ...	10,000.00	
Nelson Robinson Jr. Additional Fund, . . .	175,000.00	
Robert W. Sayles Fund, ...	5,000.00	
Francis Skinner Fund, ...	20,000.00	
Teachers' Endowment Fund (additional), ...	1,103,040.93	
Anonymous Fund in the Department of Theory and Practice, ...	10,000.00	
Jerome Wheelock Fund (additional), ...	10.00	
Emperor William Fund, ...	19,315.00	1,859,298.23
		$3,904,546.29

SALES, ETC., GENERAL INVESTMENTS.

$50,000	Am. Tel. & Tel. 5% Gold Notes of 1907, .	$50,031.25	
35,600	Burl. & Mo. River (Neb.) R. R. non. ex. 6's, called and paid at par, ...	35,600.00	
100,000	Chicago & Alton 4% Coll. Notes of 1907,	98,937.50	
154,500	Eastern 1st M. 6's of 1906, ...	154,773.45	
£19,600	Eastern 1st M. 6's Sterling of 1906, . . .	95,383.40	
40,000	Interborough Rapid Transit Co. 4's, difference on syndicate purchase and sale, . .	600.62	
100,000	Missouri Pacific 5% Notes of 1906, . . .	100,000.00	
	Amounts carried forward, ...	$535,326.22	$3,904,546.29

of the Treasurer of Harvard College,
July 31, 1906.

	Amount brought forward,			$2,413,507.49

INVESTMENTS AND SUNDRY PAYMENTS.

GENERAL INVESTMENTS.

$100,000	Central Crosstown Coll. Trust 5% Notes of 1909,		$99,375.00	
1,000	shares Chicago, Milwaukee & St. Paul, com.,		163,625.00	
325	" Chicago & North Western, common,		53,641.25	
100,000	Detroit Edison Co. 1st M. 5's of 1933,		102,500.00	
200,000	Interborough Metropolitan Coll. Trust 4½'s of 1956,		191,000.00	
58,000	Kansas City, Fort Scott & Memphis Cons. M. 6's of 1928,		71,875.00	
1,500	shares Massachusetts Gas Companies, pref'd,		132,107.00	
100,000	Missouri Pacific 5% Notes of 1908,		99,500.00	
9,000	Montana Central 1st M. 6's of 1937,		12,285.00	
163$\frac{2}{100}$	shares New York Central & Hudson River,		16,302.00	
29	rights " " " "		196.34	
100,000	Oregon Short Line Ref. M. 4's of 1929,		96,875.00	
100,000	Railway & Light Securities Co. Coll. Trust 5's of 1935,		101,000.00	
250,000	Richmond-Washington Co. Coll. Trust 4's of 1943, Series C,		256,250.00	
50,000	St. Louis National Stock Yards 1st M. 4's of 1930,		49,000.00	
100,000	Seattle Electric Co. 5% Notes of 1911,		98,666.67	
100,000	Southern Pacific 1st Ref. M. 4's of 1955,		97,062.50	
50,000	United Electric Securities Co. Coll. Trust S. F. 5's of 1935, 22d series,		51,375.00	
100,000	United Traction & Electric Co. 1st M. 5's of 1933,		112,000.00	
50,000	Wood Worsted Mills Corp'n 4% Construction & Equipment Gold Notes of 1910,		49,500.00	
800	shares Great Northern, preferred,		230,462.50	
104	" " " " subscription,		2,600.00	
1	right " " "		34.13	
Faneuil Hall Square Estate,		$90,000.00		
Legal expenses,		486.00	90,486.00	
Improvements on Gray Estate,			59,510.03	
Advances to **Bussey** real estate,			113,545.26	
" **Calvin** and **Lucy Ellis** real estate,			178.19	
" **Harvard** Dining Association.				
To long period debt,		$108,547.31		
To short " "		3,758.81	112,306.12	
" Sundry accounts,			1,839.92	
Invested in notes,			1,140,000.00	
Accrued interest and expenses on bonds bought,			8,464.55	
Expense of collecting certain bonds,			7.17	3,613,569.63
	Amount carried forward,			$6,027,077.12

RECEIPTS EXCLUSIVE OF INCOME (*continued*).

Amounts brought forward, . . .		$535,326.22	$3,904,546.29
SALES, ETC., GENERAL INVESTMENTS (*continued*).			
100,000 New England Tel. & Tel. Co. 6's of 1906,		100,000.00	
200,000 New York Central & Hudson River (L. S. & M. S. Coll.) 3½'s of 1998, difference on exchange of coupon for registered form,		1,500.00	
418 rights, New York, New Haven & Hartford,		2,006.40	
50,000 Penn'a Co. Coll. Tr. 4½% Notes of 1905, .		50,000.00	
4,000 Pennsylvania Co. 3½'s of 1916, ...		4,000.00	
100,000 Rutland Car Trust 4½'s of 1905, ...		100,000.00	
Notes paid, ...		1,180,000.00	1,972,832.62
SALES, ETC., SPECIAL INVESTMENTS OF VARIOUS FUNDS.			
Edward W. Codman Fund.			
5,000 Northern Pacific-Great Northern Joint 4's (C. B. & Q. Collateral) of 1921, ...		$4,983.75	
10 shares Boston & Albany R. R., ...		2,568.75	
55 " Boston & Lowell R. R., ...		13,468.12	
63 " Boston & Maine R. R., common, . .		10,891.12	
19 " Fitchburg R. R., preferred, ...		2,790.62	
29 " Old Colony R. R., ...		6,059.00	
37 " Père Marquette R. R., preferred, .		2,992.37	
10 " Barristers Hall Trust, ...		790.00	
25 " Hotel Trust, ...		2,915.63	
12 " Municipal Real Estate Trust, . . .		1,200.00	
62 " Old Boston National Bank, ...		6,618.50	
Undivided half of Estate in Nahant, Mass.	$10,788.72		
Less commission, ...	55.00	10,733.72	66,011.58
Henry S. Nourse Fund.			
3 shares Pennsylvania Steel Co., common, .		$149.62	
Mortgage Notes paid, ...		7,300.00	7,449.62
George Smith Bequest.			
115 shares Boatmen's Bank of St. Louis, ...			28,922.50
Daniel A. Buckley Fund.			
Real estate in Cambridge, Mass., ...		$5,500.00	
Less commission and expenses, ...		276.02	5,223.98
Fund for Advancement of Astronomical Science (1902).			
Mortgage Note paid, ...			3,000.00
Eaton Professorship Fund.			
Mortgage Notes paid, ...			84,000.00
Price Greenleaf Fund.			
317 shares Boston & Maine, common, ...		$54,801.36	
5,000 Burl. & Mo. R. in Neb. non ex. 6's called at par,		5,000.00	
Personal Note with collateral, ...		60,000.00	
Amounts carried forward, ...		$119,801.36	$6,071,986.59

of the Treasurer of Harvard College,
July 31, 1906.

INVESTMENTS AND SUNDRY PAYMENTS (*continued*).

Amount brought forward, ...		$6,027,077.12
SPECIAL INVESTMENTS OF VARIOUS FUNDS.		
Daniel A. Buckley Fund.		
Cambridge real estate,		
Additional purchase, ...	$75.00	
Mortgage paid, ...	2,500.00	
Improvements, ...	5,252.85	7,827.85
Edward W. Codman Fund.		
Mortgage note, ...		5,000.00
Price Greenleaf Fund.		
$25,000 Central Crosstown Coll. Trust 5 % Notes of 1909, ...	$24,843.75	
50,000 Seattle Electric Co. 5 % Notes of 1911,	49,333.33	
40 shares Great Northern, preferred, ...	11,525.00	
Personal note with collateral, ...	60,000.00	
Note of Massachusetts Cotton Mills, ...	50,000.00	195,702.08
Robert Troup Paine Fund.		
$2,000 Massachusetts 3½'s of 1935, ...		2,097.50
Property received for **Nelson Robinson Jr.** Additional Fund.		
1750 shares Gauley Coal Land Co., preferred, ...		175,000.00
Property received on account of the Teachers' Endowment Fund.		
$50,000 Wisconsin Central, Minneapolis Terminal Purchase Money M. 3½'s of 1950, . . .	$50,000.00	
10 shares **Harvard** Riverside Associates, . .	10,000.00	60,000.00
Amount carried forward, ...		$6,472,704.55

General Statement of Receipts and Disbursements for the year ending

RECEIPTS, EXCLUSIVE OF INCOME (*continued*).

Amount brought forward, ...			$6,071,986.59
SALES, ETC., SPECIAL INVESTMENTS (*continued*).			
Price Greenleaf Fund (*continued*).			
Amount brought forward, ...		$119,801.36	
25,000 New Eng. Tel. & Tel. Co. 6's of 1906, paid,		25,000.00	
50,000 Note of Massachusetts Cotton Mills paid,		50,000.00	
23 rights New York Central & Hudson River,		152.37	194,953.73
David A. Wells Fund.			
11 shares Walter A. Wood M. & R. Machine Co., ...			108.62
SUNDRIES.			
Harvard Dining Association.			
To reduce long period debt, ...	$7,787.88		
" short " "	375.88	$8,163.76	
Randall Hall Association, to reduce debt, ...		1,000.00	
Premiums on Bonds, repaid in part, ...		9,411.12	
Advances for accrued interest and expenses on bonds repaid, ...		11,376.50	
Improvements on **Adams** Estate, repaid in part, .		3,338.00	
" " **Bussey** Real Estate, repaid in part,		1,000.00	
" " **Gray** Estate, repaid in part, . .		3,268.17	
" " **Townsend** Estate, repaid, . . .		139.62	
Loans to Students, repaid, ...		2,834.77	
Sundry repayments, ...		198.00	
Options forfeited on Medical School real estate on Boylston and Exeter Streets, ...		1,000.00	
Insurance award, Faneuil Hall Square Estate, . . .		17,500.00	59,229.94
Bursar's Sundry Accounts.			
Receipts during the year.			
On account of **Harvard** Dining Association, .		$213,983.24	
" **Randall** Hall Association, . .		75,652.01	
On sundry accounts, ...		172,949.20	462,584.45
Balance, August 1, 1905.			
Cash in Adams Trust Co., ...		$51,692.62	
" City Trust Co., ...		2,782.22	
" Equitable Trust Co., ...		48,787.87	
" Merchants National Bank, ...		7,937.54	
" National Shawmut Bank, ...		25,145.21	
" National Union Bank, ...		61,719.58	
" Old Boston National Bank, ...		42,858.31	
" hands of Bursar, ...		38,217.37	
Term Bills overdue, ...		57,675.59	336,816.31
Total, ...			$7,125,679.64

of the Treasurer of Harvard College,
July 31, 1906.

INVESTMENTS AND SUNDRY PAYMENTS (*continued*).

Amount brought forward, ...		$6,472,704.55

SUNDRIES.

Certain bills for 1904–05 which were charged off, but not paid, during that year, ...		$3,149.20
Bursar's Sundry Accounts.		
Payments during the year.		
On account of **Harvard** Dining Association, .	$217,777.90	
" **Randall** Hall Association, . .	74,406.33	
On sundry accounts, ...	178,336.84	470,521.07
Balance, July 31, 1906.		
Cash in American Loan and Trust Co., ...	$2,492.62	
" City Trust Co., ...	40,342.41	
" Equitable Trust Co.	3,311.42	
" Merchants National Bank, ...	10,483.64	
" National Shawmut Bank, ...	180.52	
" National Union Bank, ...	1,517.37	
" Old Boston National Bank, ...	29,491.67	
" hands of Bursar, ...	40,518.71	
Term Bills overdue, ...	50,966.46	179,304.82
Total, ...		$7,125,679.64

SPECIAL INVESTMENTS.

The investments are divided into two classes, *general investments*, made up of Funds invested together (see page 53), and *special investments*, of Funds invested separately.

Any Fund specially invested, wholly, or in part, is kept so either because the giver restricted its investment, even in some cases having selected the securities, or because the gift establishing the Fund, or adding to it, was received in securities or other kinds of property which have not yet been sold for reinvestment with general investments.

The Funds separately invested for each Department and the income are as follows: —

UNIVERSITY.	Principal, July 31, 1906.	Income.
John W. Carter,		
University Houses and Lands, ...	$12,500.00	$417.55
George B. Dorr,		
University Houses and Lands, ...	115,966.56	3,873.72
George Draper,		
University Houses and Lands, ...	48,458.50	1,618.70
Robert H. Eddy,		
University Houses and Lands, ...	56,787.00	1,896.90
John Davis Williams French,		
University Houses and Lands, ...	5,322.09	166.76
John C. Gray,		
University Houses and Lands, ...	25,000.00	835.09
Walter Hastings,		
Real Estate, Sacramento St., Cambridge, ...	20,000.00	434.36
Insurance and Guaranty,		
University Houses and Lands (transf'd during year),		1,069.09
Real Estate, Lucas St., Boston, ...	4,000.00	
Joseph Lee,		
University Houses and Lands, ...	10,000.00	334.04
Henry S. Nourse (part),		
25 shares Brookside Mills, ...	2,500.00	175.00
40 " Missouri Zinc Fields Co., ...	120.00	
Mortgage Notes (paid during year), ...		314.28
Francis E. Parker,		
University Houses and Lands, ...	113,817.44	3,801.93
Henry L. Pierce (Residuary) (part),		
University Houses and Lands, ...	31,675.45	
Riverside,		
6 shares Harvard Riverside Associates, ...	6,000.00	
Henry Villard,		
University Houses and Lands, ...	50,000.00	1,670.19
William F. Weld,		
University Houses and Lands, ...	100,000.00	3,340.38
Amounts carried forward, ...	$602,147.04	$19,947.99

Amounts brought forward, ...	$602,147.04	$19,947.99
COLLEGE.		
Daniel A. Buckley (part),		
Real Estate in Cambridge, Mass., ...	60,252.85	4,802.66
" " Deer Isle, Me., ...	1.00	
Edward W. Codman (part),		
$5,000 Kansas City, Fort Scott & Memphis R. R. Cons. M. 6's of 1928, ...	6,250.00	300.00
5,000 Northern Pacific–Great Northern Joint 4's (C. B. & Q. collateral) of 1921, ...	4,816.25	285.00
10 shares Boston & Albany R. R. (sold during year),		24.50
68 " Boston & Maine R. R., common (sold during year), ...		220.50
29 " Old Colony R. R. (sold during year), . .		50.75
2 " Pacific Mills, ...	4,600.00	320.00
15 " Barristers Hall Trust, ...	1,085.00	89.92
11 " Boston Real Estate Trust, ...	13,225.00	495.00
25 " Central Building Trust, ...	2,375.00	100.00
25 " Hotel Trust (sold during year), ...		62.50
12 " Municipal Real Estate Trust (sold during year), ...		10.93
Mortgage on real estate in Nahant, Mass., ...	5,000.00	100.00
T. Jefferson Coolidge, for Research in Physics,		
625 shares Massachusetts Electric Companies, pref.,	57,500.00	
Eaton Professorship of the Science of Government,		
Mortgages on real estate in New York City (paid during year), ...		3,758.59
Eliot Professorship (**Jon. Phillips's** Gift),		
$10,000 City of Boston 3½'s of 1920, ...	10,000.00	350.00
Professorship of Hygiene (part),		
Policy of Mass. Hospital Life Insurance Co., . .	5,000.00	200.00
$16,000 Northern Pacific–Great Northern Joint 4's (C. B. & Q. collateral) of 1921, ...	15,681.85	640.00
Charles Eliot Norton Fellowship,		
$15,000 Northern Pacific–Great Northern Joint 4's (C. B. & Q. collateral) of 1921, ...	14,100.00	600.00
George Foster Peabody Scholarship,		
$6,000 Mexican Coal & Coke Co. 1st M., S. F. 5's of 1926, ...	4,800.00	300.00
Nelson Robinson Jr. Additional,		
1,750 shares Gauley Coal Land Co. preferred, . .	175,000.00	
Dunlap Smith Scholarship,		
$5,000 Metropolitan West Side Elevated R. R. Extension M. 4's of 1938, ...	4,700.00	200.00
Stoughton Scholarship (part),		
Real Estate in Dorchester, ...	1,294.30	100.00
Amounts carried forward, ...	$987,828.29	$32,458.34

Amounts brought forward, ...	$987,828.29	$32,458.34
Teachers' Endowment (part),		
Broadway Realty Co. Purchase Money, 2d M. 5's of 1916, ...	5,000.00	250.00
$50,000 Wisconsin Central, Minneapolis Terminal Purchase Money M. 3½'s of 1950, ...	50,000.00	1,750.00
10 shares **Harvard** Riverside Associates, ...	10,000.00	
Wales Professorship of Sanskrit,		
Real Estate, Cornhill, Boston, ...	40,000.00	1,983.34
Samuel Ward's Gift (part),		
Ward's (Bumkin) Island, Boston Harbor, . . .	1.00	

LIBRARY.

Ichabod Tucker (part),		
Policy of Mass. Hospital Life Insurance Co., . . .	5,000.00	200.00

LAW SCHOOL.

James Barr Ames Prize (part),		
Personal Note, ...	2,000.00	163.20

MEDICAL SCHOOL.

Calvin and Lucy Ellis (part),		
40,000 Northern Pacific–Great Northern Joint 4's (C. B. & Q. collateral) of 1921, ...	26,585.00	1,600.00
Real Estate in Boston (half), ...	22,500.00	82.64
Real Estate in Eden, Bar Harbor, Maine, ...	10,000.00	
George C. Shattuck (part),		
$25,000 Kansas City, Fort Scott & Memphis R. R. Cons. M. 6's of 1928 ($203.70 deducted from income for sinking premium), ...	29,481.50	1,296.30

OBSERVATORY.

Advancement of Astronomical Science (1902) (part),		
$5,000 Northern Pacific–Great Northern Joint 4's (C. B. & Q. collateral) of 1921, ...	4,800.00	200.00
15 shares Calumet & Hecla Mining Co., ...	9,000.00	825.00
Mortgage Note (paid during year), ...		37.50
Amounts carried forward, ...	$1,202,195.79	$40,846.32

Amounts brought forward, ...	$1,202,195.79	$40,846.32

PEABODY MUSEUM OF AMERICAN ARCHAEOLOGY AND ETHNOLOGY.

Peabody Building (part), $54,000 Kansas & Missouri R. R. 1st M. 5's of 1922,	11,512.72	622.32
Peabody Collection (part),	19,218.64	1,038.84
Peabody Professor (part),	19,218.64	1,038.84
Thaw (part) ($8.48 deducted from income for sinking premium),		
$20,000 Girard Point Storage Co. 1st M. 3½'s of 1940,	20,288.14	691.52

BUSSEY INSTITUTION.

Woodland Hill,		
Laboratory of Comparative Pathology building, .	18,115.23	750.00

ARNOLD ARBORETUM.

Robert Charles Billings,		
$5,000 Butte Water Co. 1st M. 5's of 1921, ...	4,000.00	250.00

SPECIAL FUNDS.

Bussey Trust,		
Real Estate, ...	392,710.18	17,024.64
Fund of the **Class of 1834,**		
Policy of Mass. Hospital Life Insurance Co., . . .	1,000.00	40.00
Fund of the **Class of 1844,**		
Policy of Mass. Hospital Life Insurance Co., . . .	6,500.00	260.00
Fund of the **Class of 1853,**		
Policy of Mass. Hospital Life Insurance Co., . . .	3,725.00	149.00
Calvin and **Lucy Ellis** Aid (part),		
Real Estate in Boston (half), ...	22,500.00	82.64
Charles L. Hancock Bequest (part),		
Real Estate in Chelsea, ...	1.00	
Robert Troup Paine (accumulating) ($185.73 deducted from income for sinking premiums),		
$38,000 Massachusetts 3½'s of 1913, ...	39,085.63	1,185.25
5,000 " " 1916, ...	5,208.55	154.15
6,000 " " 1935, ...	6,316.83	161.29
4,000 " " 1938, ...	4,342.05	129.14
George Smith Bequest (part),		
$10,000 Du Quoin, Ill., Water Works Co. 6's of 1901, ...	1.00	
20,000 Laclede Gas Light Co. 5's of 1919, . . .	20,000.00	1,000.00
32,000 United States Steel Corporation 5's of 1963,	24,000.00	1,600.00
115 shares Boatmen's Bank of St. Louis (sold during year), ...		517.50
200 " Laclede Gas Light Co., preferred, . .	18,800.00	1,000.00
Amounts carried forward, ...	$1,838,739.40	$68,541.45

Amounts brought forward, ...	$1,838,739.40	$68,541.45
Price Greenleaf. ($458.75 deducted from income for sinking premiums.) The total amount of this Fund is $794,942.67, which is invested as follows: —		
$70,000 American Bell Telephone Co. 4's of 1908,	70,257.90	2,671.05
70,000 Broadway Realty Co. Purchase money 1st M. 5's of 1926, ...	73,776.24	3,315.78
19,000 Burl. & Mo. R. R. R. in Neb. non ex. 6's of 1918, ...	19,000.00	1,350.00
25,000 Central Crosstown Coll. Trust 5 % Notes of 1909, ...	24,843.75	
43,500 Central Vermont R'y 1st M. 4's of 1920, .	37,845.00	1,740.00
3,000 Chicago, Burl. & Quincy R. R. 4's of 1922,	2,880.00	120.00
$50,000 Chic. Junc. R'ys & Union Stock Yards 5's of 1915, ...	47,000.00	2,500.00
8,000 Kansas City, Fort Scott & Memphis cons. M. 6's of 1928, ...	9,570.21	408.63
50,000 Metropolitan Tel. & Tel. Co. 1st M. 5's of 1918, ...	49,750.00	2,500.00
25,000 New England Tel. & Tel. Co. 6's of 1906 (paid during year), ...		1,425.79
34,000 New York Central & Hudson River R. R. (Michigan Central Collateral) 3½'s of 1998,	28,412.10	1,190.00
32,000 Northern Pacific–Great Northern Joint 4's (C. B. & Q. collateral) of 1921, ...	19,993.55	1,280.00
50,000 Seattle Electric Co. 5 % Notes of 1911, . .	49,333.33	
50,000 Union Pacific R.R. 1st M. & L.G. 4's of 1947,	44,625.00	2,000.00
50,000 Note of Massachusetts Cotton Mills, . . .	50,000.00	2,000.00
60,000 Personal Note with collateral (transferred during year), ...		142.50
360 shares Boston & Lowell R. R., ...	46,800.00	2,880.00
317 " Boston & Maine R.R. (sold during year),		1,109.50
237 " Fitchburg R. R., preferred, ...	22,306.27	1,185.00
40 " Great Northern, preferred, ...	11,525.00	
355 " Old Colony R. R., ...	63,190.00	2,485.00
23 " N. Y. Central & Hudson River R. R., .	2,482.63	115.00
290 " Northern R. R. (N. H.), ...	29,290.00	1,740.00
52 " West End Street Railway, preferred, .	4,305.56	208.00
34 " Central Vermont R'y, ...	428.72	
707 " Pennsylvania R. R., ...	51,856.04	2,121.00
17 " Boston Real Estate Trust, ...	22,978.75	765.00
100 " Paddock Building Trust, ...	10,000.00	350.00
Cash in American Loan and Trust Co., ...	2,492.62	
" City Trust Co. (withdrawn during year),		139.30
Totals of special investments, . . .	$2,633,682.07	$104,283.00

INVESTMENTS.

INCLUDING GENERAL INVESTMENTS IN DETAIL.

The following account exhibits the state of the property, as ntered upon the Treasurer's books, July 31, 1906 : —

PECIAL INVESTMENTS, SUMMARY. (For details see page 48.)		
Railroad Bonds,	$363,990.46	
Traction Bonds,	29,543.75	
Sundry Bonds,	433,159.67	
Railroad Stocks,	289,684.22	
Real Estate Trust Stocks,	65,663.75	
Sundry Stocks,	210,020.00	
University Houses and Lands,	569,527.04	
Bussey Real Estate,	392,710.18	
Other Real Estate,	198,665.38	
Mortgages and Notes,	57,000.00	
Deposits in Massachusetts Hospital Life Ins. Co.,	21,225.00	
Cash in American Loan and Trust Co.,	2,492.62	$2,633,682.07
ENERAL INVESTMENTS.		
Mortgages and Notes.		
Mortgages,	$650,000.00	
American Tel. & Tel. Co.'s Note,	50,000.00	
" Woolen Co.'s Note,	50,000.00	
Armour & Co.'s Notes,	100,000.00	
Buffalo Terminal Association's Notes,	100,000.00	
Edison Electric Illuminating Co.'s Notes,	50,000.00	
Hamilton Manufacturing Co.'s Note,	50,000.00	
Hartford Carpet Corporation's Note,	50,000.00	
Indian Head Mills of Alabama, Note,	50,000.00	
Terminal R. R. Association of St. Louis, Notes,	50,000.00	
Personal Notes, with collateral,	110,000.00	1,810,000.00
Public Funds.		
£3,500 Imperial Japanese Government Sterling Loan 4½'s of 1925,	$15,334.55	
$100,000 United States of Mexico 4's of 1954,	93,250.00	108,584.55
Railroad Bonds.		
$100,000 Baltimore & Ohio 1st M. 4's of 1948,	$96,625.00	
100,000 B. & O. (S. W. Div.) 1st M. 3½'s of 1925,	89,750.00	
100,000 Baltimore & Ohio (Pittsburg, Lake Erie & West Virginia) Ref. M. 4's of 1941,	99,250.00	
125,000 Bangor & Aroostook Cons. Ref. M. 4's of 1951,	118,750.00	
164,800 Burl. & Mo. R. in Nebr. non ex. 6's,	164,800.00	
444,000 Chicago, Burl. & Quincy 3½'s of 1949,	456,736.29	
200,000 C., B. & Q. (Illinois Div.) 4's of 1949,	200,955.56	
Amounts carried forward,	$1,226,866.85	$4,052,266.62

	Amounts brought forward, . .	$1,226,866.85	$4,052,266.62
Railroad Bonds (*continued*).			
$100,000	Chicago & No. Western Gen. M. 3½'s of 1987, ...	100,959.03	
100,000	Chicago, Rock Island & Pacific Gen. M. 4's of 1988, ...	106,446.58	
100,000	Chicago Terminal Transfer 1st M. 4's of 1947, ...	95,772.50	
100,000	Indiana, Ill. & Iowa 1st M. 4's of 1950,	96,500.00	
200,000	Kansas City, Fort Scott & Memphis Cons. M. 6's of 1928, ...	242,482.76	
114,000	Kansas City, Memphis & Birmingham (assented) Income 5's of 1934, . . .	103,500.00	
100,000	Lake Shore & Michigan Southern Deb. 4's of 1928, ...	95,000.00	
300,000	Long Island Unified M. 4's of 1949, . .	283,257.50	
200,000	Louisville & Jeffersonville Bridge Co. 1st M. 4's of 1945, ...	191,000.00	
100,000	Minneapolis Union 1st M. 5's of 1922, .	102,130.64	
100,000	Missouri Pacific 5% Notes of 1908, . .	99,500.00	
100,000	Montana Central 1st M. 6's of 1937, . .	135,359.37	
300,000	New York Central & H. R. (L. S. & M. S. Coll 3½'s of 998, ...	294,464.40	
100,000	New York, New Haven & Hartford Deb. 4's of 1955, ...	106,125.00	
200,000	New York Ontario & Western Ref. M. 4's of 1992, ...	209,964.58	
343,000	Northern Pacific-Great Northern Joint 4's (C. B. & Q. Coll.) of 1921, . . .	164,325.92	
100,000	Oregon Short Line Cons. 1st M. 5's of 1946, ...	116,678.62	
100,000	Oregon Short Line Ref. M. 4's of 1929,	96,875.00	
77,000	Pennsylvania Co. 3½'s of 1916, ...	74,875.00	
250,000	Richmond-Washington Co. Coll. Trust 4's of 1943, Series C	256,140.35	
100,000	St. Louis & San Francisco Ref. M. 4's of 1951, ...	97,125.00	
£40,000	St Paul, Minneapolis & Manitoba (Pacific Extension) 4's of 1940, ...	201,475.32	
100,000	Southern Pacific 1st Ref M. 4's of 1955,	97,062.50	
200,000	Terminal R. R. Association of St. Louis Gen. M. Ref. 4's of 1953, ...	200,000.00	
400,000	Union Pacific 1st M. & L. G. 4's of 1947,	353,114.75	5,147,001.67
Traction Bonds.			
$150,000	Boston & Northern Street R'y 1st M. Ref. 4's of 1954, ...	$139,000.00	
100,000	Central Crosstown Coll. Trust 5% Notes of 1909, ...	99,375.00	
	Amounts carried forward, . . .	$238,375.00	$9,199,268.29

	Amounts brought forward, . . .	$238,375.00	$9,199,268.29
Traction Bonds (*continued*).			
$200,000	Interborough–Metropolitan Coll. Trust 4½'s of 1956, ...	191,000.00	
200,000	Interborough Rapid Transit 4% Gold Notes of 1908, ...	195,299.38	
100,000	Metrop. West Side Elevated 4's of 1938,	91,746.25	
100,000	" " " Ext. M. 4's of 1938, ...	97,000.00	
150,000	Old Colony Street R'y 1st M. Ref. 4's of 1954, ...	139,000.00	
100,000	Schenectady 1st M. 4½'s of 1941, . . .	104,551.27	
100,000	Second Ave. (N. Y.) Con. M. 5's of 1948,	116,579.08	
200,000	Third Avenue (N. Y.) 1st Consol. M. 4's of 2000, ...	202,308.34	
100,000	United Traction & Electric Co. 1st M. 5's of 1933, ...	111,781.82	
100,000	Public Service Corporation of New Jersey 5% Coll. Notes of 1909, . . .	97,000.00	1,584,641.14
Sundry Bonds.			
$200,000	American Bell Tel. Co. 4's of 1908, . .	$201,016.62	
200,000	American Tel. & Tel. Co. 4's of 1929, .	196,000.00	
50,000	American Tel. & Tel. Co. 5% Gold Coupon Notes of 1907	46,531.25	
100,000	Boston Electric Light Co. 1st Cons. M. 5's of 1924, ...	112,570.51	
145,000	Broadway Realty Co. Purchase money 1st M. 5's of 1926, ...	154,916.77	
100,000	Chicago Edison Co 1st M. 5's of 1926, .	105,808.00	
250,000	Chicago Junction Railways and Union Stock Yards Coll. Trust 5's of 1915, .	250,181.30	
100,000	Chicago Junction Railways and Union Stock Yards 4's of 1940, ...	98,500.00	
100,000	Detroit Edison Co. 1st M. 5's of 1933, .	102,430.82	
100,000	Metrop. Tel. & Tel. Co. 1st M. 5's of 1918,	99,500.00	
100,000	Minneapolis General Electric Co. Gen. M 5's of 1934, ...	102,415.26	
100,000	Montreal Light, Heat and Power Co. 1st M. Coll. Tr. 4½'s of 1932, ...	100,849.97	
100,000	Municipal Gas & Electric Co. of Rochester N Y., 1st M. 4½'s of 1942, . . .	100,000.00	
100,000	New England Tel. & Tel. Co. 5's of 1916,	109,411.74	
100,000	Portland General Electric Co. 1st M. 5's of 1935, ...	102,175.00	
101,000	Railway and Light Securities Co. Coll. Trust 5's of 1935, ...	100,988.70	
160,000	St. Louis National Stock Yards Co. 1st M. 4's of 1930, ...	157,650.00	
	Amounts carried forward, . . .	$2,140,945.94	$10,783,909.43

Amounts brought forward,	$2,140,945.94	$10,783,909.43
Sundry Bonds (*continued*).		
$50,000 Wood Worsted Mills Corp'n 4½% Cons. and Equip. Gold Notes of 1910,	49,500.00	
50,000 United Electric Securities Co. Coll. Trust S. F. 5's of 1935, 22d Series,	51,375.00	
100,000 Seattle Electric Co. 5% Notes of 1911,	98,666.67	2,340,487.61
Railroad Stocks.		
900 shares Chicago & No. Western, common,	$143,703.75	
1033 " Great Northern, preferred,	256,324.43	
1 right " " "	34.13	
700 shares Manhattan,	92,762.50	
1388$\frac{2}{100}$ shares New York Central & Hudson River,	80,976.87	
29 rights " " " "	196.34	
418 shares New York, New Haven & Hartford,	74,693.86	
4771 " Pennsylvania,	309,500.30	
1000 " Chicago, Milwaukee & St. Paul, com.,	163,625.00	1,121,817.18
Manufacturing and Telephone Stocks.		
2000 shares American Smelters Securities Co. 5% cumulative, preferred, series B,	$196,000.00	
1700 shares American Tel. & Tel. Co.,	238,125.38	
12 " Amoskeag Manufacturing Co.,	3,654.00	
187 " Merrimack " "	18,615.10	
24 " Pacific Mills,	16,668.29	473,062.77
Real Estate Trust Stocks.		
1000 shares Barristers Hall,	$92,766.00	
2500 " Department Store,	220,291.88	
1000 " Essex Street,	100,000.00	
750 " Kimball Building,	75,000.00	
1089 " Paddock Building,	104,363.72	
1000 " Post Office Square Building,	103,000.00	695,421.60
Sundry Stocks.		
1500 shares Massachusetts Gas Companies, pref'd,		132,107.00
Real Estate in Boston.		
Adams Estate, Washington Street,	$275,035.02	
Amory Estate, Franklin Street,	165,615.81	
Cowdin Estate, Haymarket Square,	36,000.00	
Estate, 20 and 21 Haymarket Square,	58,913.52	
Faneuil Hall Square Estate,	72,986.00	
Gerrish Block, Blackstone and North Streets,	192,875.75	
Gray Estate, Washington Street,	949,751.16	
Lowell Estate, Washington Street,	464,368.91	
Townsend Estate, Hawkins Street,	44,569.49	
Webb Estate, Washington Street,	164,604.79	2,424,720.45
Amount carried forward,		$17,971,526.04

Amount brought forward,		$17,971,526.04
Sundries.		
Advances to **Bussey** Trust,	$345,217.07	
“ **Calvin & Lucy Ellis** Real Estate,	345.31	
“ **William Hayes Fogg** Art Museum,	93.68	
“ **Emerson** Hall,	3,368.81	
“ Dental School Real Estate,	87.58	
“ Medical School,	5,553.39	
“ Medical School Real Estate,	106.69	
“ Medical School Undertaking,	1,183,526.43	
“ Observatory,	5,466.59	
“ **Peabody** Museum of American Archaeology and Ethnology,	2,117.79	
“ Botanic Department,	8,990.78	
“ **Harvard** Dining Association,	180,792.13	
“ **Randall** Hall Association,	31,202.27	
“ **Uriah A. Boyden** Fund,	5,735.53	
“ Classical Publication Fund of the **Class of 1856**,	1,505.58	
“ Woodland Hill Fund,	2,543.63	
“ Stadium,	48,665.32	
“ Sundry Accounts,	4,254.89	
	$1,829,573.47	
Term Bills overdue,	50,966.46	1,880,539.93
Cash in City Trust Co.,	$40,342.41	
“ Equitable Trust Co.,	3,311.42	
“ Merchants National Bank,	10,483.64	
“ National Shawmut Bank,	180.52	
“ National Union Bank,	1,517.37	
“ Old Boston National Bank,	29,491.67	
“ hands of Bursar,	40,518.71	125,845.74
Total,		$19,977,911.71

FUNDS.

The foregoing property represents the following Funds and Balances, and is answerable for the same*: —

Principal, Aug. 1, 1905.	UNIVERSITY FUNDS.	Principal, July 31, 1906.	
$1,143.00	Band Music (1903), ...	$1,143.00	
	William H. Baldwin, Jr. (1906),	2,000.00	
4,950.00	Andrew Bigelow (1898 , ...	4,950.00	
5,000.00	Stanton Blake 1899), ...	5,000.00	
4,771.33	Charlotte F Blanchard (1891), .	4,771.33	
5,250.00	Samuel D. Bradford (1866), . .	5,250.00	
	James C. Carter (1906), ...	100,000.00	
12,500.00	John W. Carter (1898), ...	12,500.00	
155.10	Thomas Cotton (1727), ...	154.82	
33,835.06	John Cowdin (1888), ...	33,835.06	
115,966.56	George B. Dorr (1882), ...	115,966.56	
48,458.50	George Draper (1892), ...	48,458.50	
56,787.00	R. H. Eddy 1901), ...	56,787.00	
101,225.49	Harvard Ellis 1895), ...	101,225.49	
12,500.00	Richard W Foster (1905), . . .	25,000.00	
5,322.09	John Davis Williams French (1901),	5,322.09	
20,571.18	Gore (1834), ...	20,571.18	
25,000.00	John C. Gray (1881), ...	25,000.00	
20,000.00	Walter Hastings 1888), ...	20,000.00	
	Henry L. Higginson (1906), . .	20,000.00	
5,000.00	George Baxter Hyde (1895), . .	5,000.00	
36,005.06	Insurance and Guaranty (1860), . . .	4,000.00	
16,871.63	Leonard Jarvis (1859)	16,871.63	
10,000.00	Henry P Kidder 1894), ...	10,000.00	
10,000.00	Joseph Lee 1802), ...	10,000.00	
10,000.00	Theodore Lyman (1898), ...	10,000.00	
81,950.54	Henry T. Morgan (1883), ...	81,950.54	
15,750.00	Israel Munson (1844)	15,750.00	
47,475.66	Henry S. Nourse (1904), ...	48.972.49	
113,817.44	Francis E. Parker (1886), . . .	113,817.44	
30,000.00	William Perkins (1888), ...	30,000.00	
50,846.17	Henry L. Pierce (1898), ...	50,217.37	
205,474.96	Henry L. Pierce (Residuary) (1898),	178,183.71	
63,750.24	President's (1883), ...	63,640.31	
366,416.47	Retiring Allowance (1879), ...	366,416.47	
6,000.00	Riverside (1903), ...	6,000.00	
23,370.03	John L. Russell (1889), ...	23,370.03	
1,901.77	Mary R. Searle (1903), ...	1,962.53	
46,913.13	Isaac Sweetser (1894), ...	46,913.13	
5,000.00	Seth Turner 883), ...	5,000.00	
100,000.00	William F. Weld (1893), ...	100,000.00	$1,796,000.68
$1,719,978.41	. . Amounts carried forward, ...		$1,796,000.68

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* The dates of the establishment of the Funds are printed after their titles.

Principal, Aug. 1, 1905.		Principal, July 31, 1906.	
$1,719,978.41	. . Amounts brought forward, ...		$1,796,000.68

COLLEGE FUNDS.*

Principal, Aug. 1, 1905.		Principal, July 31, 1906.	
10,292.53	**John W. P. Abbot** (1874), . . .	10,780.42	
27,748.64	**Alford** Professorship (1765), . . .	27,748.64	
6,230.00	**Daniel Austin** (1879), ...	7,806.86	
	William H. Baldwin, Jr. 1885 (1906), ...	5,787.61	
15,000.00	**Robert Charles Billings,** for **Gray** Herbarium (1903), ...	15,000.00	
1,050.00	**John A. Blanchard** (1873), . .	1,050.00	
39,780.00	Botanic Department (1880) . . .	39,780.00	
28,337.40	**Boylston** Professorship (1772), . .	28,337.40	
11,437.75	**Francis James Child** Mem. (1897),	11,610.52	
7,105.12	Classical Publication Fund of the **Class of 1856** (1888), ...	7,105.12	
100,409.98	**Class of 1880** (1905), ...	103,669.41	
150,617.54	Class Subscription (1870), ...	150,617.54	
321,361.90	**Edward W. Codman** (1905), . .	322,158.89	
1,429.10	Cryptogamic Herbarium (balance), .	1,900.49	
57,500.00	**T. Jefferson Coolidge,** for Research in Physics, ...	57,969.66	
3,598.18	**Paul Dudley** (1751), ...	3,768.73	
105,051.21	**Eaton** Professorship (1903), . . .	106,516.38	
21,619.50	**Eliot** Professorship (1814), ...	21,619.50	
10,000.00	**Eliot** " (Jon. Phillips' gift) (1854), ...	10,000.00	
3,500.01	**Erving** Professorship (1791), . . .	3,500.01	
35,990.99	**Fisher** " (1834), . . .	35,990.99	
434.04	**Henry Flynt** (1760), ...	419.24	
16,240.38	Fund for Permanent Tutors (1796),	16,240.38	
1,033.57	Fund for Religious Services (1887), .	1,033.57	
12,943.34	**Godkin** Lectures (1903), ...	13,556.84	
6,789.80	Gospel Church (1868), ...	6,950.72	
882.39	**Gray** Herbarium (balance), ...	1,734.70	
32,611.00	**Asa Gray** Memorial (1898), . . .	32,611.00	
21,646.65	**Asa Gray** Professorship of Systematic Botany (1897), ...	21,608.04	
196,369.51	**Gurney** (1888), ...	196,677.45	
5,287.70	**George Silsbee** and **Ellen Sever Hale** (1904), ...	5,538.35	
15,063.00	**Harvard** Oriental Series (1899), . .	15,101.99	
20,655.91	Herbarium (1865), ...	20,655.91	
20,217.08	**Hersey** Professorship (1772), . . .	20,217.08	
21,744.18	**Hersey** Professorship (**Thomas Lee's** gift) (1856), ...	21,744.18	
$3,049,956.81	. . Amounts carried forward, . . .	$1,346,807.62	$1,796,000.68

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* Including some actually used in the Graduate School.

Principal, Aug. 1, 1905.		Principal, July 31, 1906.	
$3,049,956.81	. . Amounts brought forward, . . .	$1,346,807.62	$1,796,000.68
34,517.60	**Hollis** Professorship of Divinity (1726),	34,517.60	
3,747.33	**Hollis** " of Mathematics (1713),	3,747.33	
6,059.47	**Ingersoll** Lecture (1894),	5,981.12	
2,087.04	**Jefferson** Physical Lab'y (balance),	1,934.53	
10,737.97	Lectures on Political Economy 1889),	10,881.95	
15,796.97	**Lee** Fund for Reading 1863),	15,796.97	
109,875.59	**Henry Lee** Professorship (1900),	110,083.71	
7,999.05	**Joseph Lovering** for Physical Research (1891),	8,022.97	
66,407.31	**Lowell** Fund for a Botanic Garden (1882) (formerly Professorship of Natural History 1805),	66,407.31	
25,000.00	**Arthur T Lyman** (1904),	25,000.00	
43,062.93	**McLean** Professorship (1834,	43,062.93	
1,100.90	Music Department (1903)	1,086.62	
24,294.17	**William Belden Noble** Lectures (1898),	24,534.86	
100,820.02	**Francis Greenwood Peabody** Endowment (1905	104,398.89	
14,266.38	**Daniel H. Peirce** 1876),	14,334.00	
21,000.00	**Perkins** Professorship (1841),	21,000.00	
31,500.00	**Jonathan Phillips** 1861),	31,500.00	
75,000.00	Physical Laboratory Endowm't (1881),	75,000.00	
25,020.19	**Plummer** Foundation (1854),	25,020.19	
52,500.00	**Pope** Professorship (1868),	52,500.00	
231,502.63	Professorship of Hygiene (1899)	238,202.91	
520,300.72	**Nelson Robinson, Jr.** (1899),	525,000.00	
	Nelson Robinson, Jr. Additional (1906),	175,000.00	
56,368.73	**Rumford** Professorship (1819),	56,368.73	
2,000.00	**John L. Russell** 1889),	2,000.00	
60,000.00	**Gurdon Saltonstall** (1901),	60,000.00	
4,630.90	**George William Sawin** (1890),	4,815.21	
	Robert W Sayles (1906),	5,118.50	
17.53	**Barthold Schlesinger** (1901),		
3,957.17	School for Social Workers (balance), (1904),	1,962.16	
23,139.83	**Smith** Professorship (1816),	23,139.83	
2,500.00	**William M. Spackman** (1905),	2,500.00	
13,589.79	**Josiah Stickney** (1899),	12,560.17	
740,255.55	Teachers' Endowment (1905),	1,846,394.10	
16,592.82	**John E. Thayer** (1885),	16,655.01	
1,015.14	**Elizabeth Torrey** (1896),	1,047.79	
11,254.41	**Henry Warren Torrey** (1890),	11,584.47	
	Twenty-fifth Anniversary Fund of the **Class of 1881** (1906),	89,368.98	
101,860.62	**Unknown** Memorial (1898),	101,972.21	
$5,509,735.57	. . Amounts carried forward, . . .	$5,195,308.67	$1,796,000.68

Principal, Aug. 1, 1905.		Principal, July 31, 1906.	
$5,509,735.57	. . Amounts brought forward,	$5,195,308.67	$1,796,000.68
50,000.00	**Henry Villard** (1902),	50,000.00	
40,000.00	**Wales** Professorship (1903),	40,000.00	
16,233.58	**Samuel Ward** (1680),	17,003.02	
6,489.34	**Cyrus M. Warren** (1893),	6,492.03	
119,999.17	**Henry C. Warren** (1899),	115,167.01	
6,149.43	**Sylvester Waterhouse** (1896),	6,440.89	
50,000.00	**Increase Sumner Wheeler** (1889),	50,000.00	
21.22	**Jerome Wheelock** (1903),	32.50	
1,076.10	**Chauncey Wright** (1884),	1,127.10	
	GIFTS FOR SPECIAL USE (BALANCES).		
2,264.02	For Equipment for the Department of Architecture,	3,319.93	
1,373.75	Cases, etc., at the Botanic Garden,	1,183.82	
229.46	Classical Library,	257.07	
322.52	Collections for a Germanic Museum,	322.52	
.13	Electrical Apparatus,	.13	
4,077.77	The study of Social Ethics,	1,512.34	
13,014.25	Furnishings of the Department of Social Ethics,	931.48	
22,390.79	Furnishing Emerson Hall,	715.86	
10.65	Physical Research,	10.65	
3,377.56	Plantation of Shrubs, etc.,	3,445.11	
375.00	Salaries,	1,125.00	
262.32	Sanskrit Department,	521.88	
618.57	Semitic Library,	261.35	
808.64	Sugar-cane investigation, etc.,	1,477.38	
5,576.62	Sundry Gifts (balances),	6,107.21	
	FELLOWSHIP FUNDS.		
	Julia Amory Appleton (1906),	20,157.98	
5,249.88	**George Dillaway** (1903),	5,348.73	
11,524.22	**Ozias Goodwin** Memorial (1889),	11,395.46	
11,145.64	**Harris** (1868),	10,923.96	
25,409.98	**Edward William Hooper** (1905),	26,114.41	
10,932.72	**John Thornton Kirkland** (1871),	11,450.94	
11,851.85	**Henry Lee** Memorial (1889)	11,963.64	
14,400.00	**Charles Eliot Norton** (1901),	14,114.22	
12,989.08	**Robert Treat Paine** (1887),	13,104.76	
58,949.09	**John Parker** (1873),	59,068.27	
	Francis Parkman (1906),	10,296.25	
32,264.02	**Rogers** (1869),	32,705.83	
11,688.64	**Henry Bromfield Rogers** Memorial (1889),	12,242.70	
	South End House (balance),	50.00	
11,905.93	**John Tyndall** (1885).	11,970.27	
11,281.42	**James Walker** (1881),	11,566.14	
23,228.80	**Whiting** (1896),	23,849.85	
$6,107,227.73	. . Amounts carried forward,	$5,789,086.36	$1,796,000.68

Principal, Aug. 1, 1905.		Principal, July 31, 1906.	
$6,107,227.73	. . Amounts brought forward, . . .	$5,789,086.36	$1,796,000.68
	SCHOLARSHIP FUNDS.		
3,816.91	**Abbot** (1852),	3,847.84	
2,174.60	**Alford** (1785),	2,277.70	
5,400.18	**Bartlett** (1881),	5,406.14	
5,682.33	**Bassett** (1876)	5,681.66	
13,351.12	**Bigelow** 1865),	13,483.96	
2,716.16	**Samuel A. Borden** (1896),	2,844.90	
114,353.35	**Bowditch** (1864),	114,843.68	
3,545.84	**Bright** (balance),	3,773,92	
3,885.67	**Browne** 1687),	3,919.87	
5,311.46	**Morey Willard Buckminster** (1898),	5,443.20	
33,961.59	**Burr** (1895),	34,291.39	
6,163.34	**Ruluff Sterling Choate** (1884),	6,180.47	
8,428.07	**Class of 1802** (1870),	8,502.56	
3,294.60	" **1814** (1853),	3,275.78	
6,663.29	" **1815** (**Kirkland**) (1852),	6,729.12	
4,639.35	" **1817** (1852),	4,684.24	
3,529.15	" **1828** (1882),	3,546.42	
5,040.72	" **1835** (1853),	5,114.66	
5,204.72	" **1841** (1871),	5,251.44	
5,203.54	" **1852** (**Dana**) (1876),	5,250.21	
15,962.62	" **1856** (1885),	16,119.27	
4,822.52	" **1867** (1886),	4,876.13	
5,238.26	" **1877** (1902),	5,206.54	
6,069.80	" **1883** (1900),	6,132.52	
12,233.87	**Crowninshield** (1877)	12,273.76	
600.00	**Warren H. Cudworth** (balance),	600.00	
5,833.07	**Francis H. Cummings** (1898),	6,109.55	
5,581.25	**George** and **Martha Derby** (1881),	5,595.79	
5,168.00	**Julius Dexter** (1892)	5,232.96	
2,857.26	**Orlando W. Doe** (1893),	2,892.68	
5,519.19	**William Samuel Eliot** (1875),	5,530.79	
41,459.25	**Joseph Eveleth** (1896),	41,824.41	
2,196.31	Fall River (1893),	2,220.40	
6,369.20	**Farrar** (1873),	6,421.09	
11,591.25	**Richard Augustine Gambrill** (1890),	11,690.66	
7,759.81	**Charles Haven Goodwin** (1889),	7,827.63	
4,353.60	**Greene** (1863),	4,409.98	
120.00	**Price Greenleaf** (balance),	100.00	
80.00	**Harvard Club** of Buffalo (balance),		
10,430.56	**John Appleton Haven** (1902),	10,444.99	
24,229.54	**William Hilton** (1897),	24,388.04	
10,930.60	**Ebenezer Rockwood Hoar** (1895),	11,023.73	
$6,538,999.68	. . Amounts carried forward, . . .	$6,224,356.44	$1,796,000.68

Principal, Aug. 1, 1905.		Principal, July 31, 1906.	
$6,538,999.68	. . Amounts brought forward,	$6,224,356.44	$1,796,000.68
6,502.96	**Levina Hoar,** for the town of Lincoln, Mass. (1876),	6,461.20	
13,690.69	**Hodges** (1878),	13,725.46	
6,380.30	**Hollis** (1722),	6,432.71	
10,956.82	**Henry B. Humphrey** (1890),	11,026.18	
31,088.72	**Charles L. Jones** (1901),	31,362.34	
10,546.79	**George Emerson Lowell** (1886),	10,666.71	
5,317.46	**Markoe** (1903)	5,419.49	
3,285.94	**Matthews** (balance),	3,922.40	
6,252.09	**Merrick** (1888),	6,323.43	
8,392.32	**Morey** 1868),	8,465.10	
5,885.85	**Lady Mowlson** (1643),	5,939.85	
5,760.58	**Howard Gardner Nichols** (1897),	5,808.65	
6,043.89	**Lucy Osgood** (1873),	6,195.38	
5,067.34	**George Foster Peabody** (1902),	5,130.00	
6,725.51	**Pennoyer** 1670),	6,854.32	
4,423.35	**Rebecca A. Perkins** (1869),	4,483.00	
10,921.80	Philadelphia 1904),	11,014.50	
1,559.06	**Wendell Phillips** Mem'l (1895),	1,632.96	
350.00	**Ricardo** Prize (balance),	350.00	
1,221.58	**Rodger** (1883),	1,279.50	
3,522.53	**Henry Bromfield Rogers** (1859),	3,539.52	
5,813.49	**Edward Russell** (1877),	5,864.03	
5,681.59	**Sales** (1893),	5,750.92	
11,338.82	**Saltonstall** 1739),	11,451.29	
8,649.68	**Leverett Saltonstall** (1895),	8,734.69	
6,964.54	**Mary Saltonstall** (1730),	7,094.68	
3,260.55	**Sever** (1868),	3,265.12	
11,178.22	**Sewall** (1696),	11,388.06	
49,596.77	**Shattuck** 1854),	49,847.67	
6,120.11	**Slade** (1877	6,200.20	
4,703.30	**Dunlap Smith** (1903),	4,723.44	
4,558.82	**Story** 1864)	4,599.92	
3,035.97	**Stoughton** (1701),	3,218.54	
3,708.77	**Swift** (1899),	3,884.58	
79,796.20	**Thayer** (1857),	80,578.53	
4,315.35	**Gorham Thomas** (1865),	4,369.88	
7,783.99	**Toppan** (1868),	7,852.95	
25,873.82	**Townsend** (1861),	26,100.25	
5,089.38	**Walcott** 1855	5,130.60	
10,738.18	**Christopher M. Weld** (1899),	10,847.16	
5,341.60	**Jacob Wendell** (1899),	5,399.55	
11,828.24	**Whiting** (1874),	11,938.89	
5,046.00	**Josiah Dwight Whitney** (1904),	5,085.18	
9,539.94	**Mary L. Whitney** (1903 ,	9,757.14	
10,123.00	**Charles Wyman** (1905),	10,202.83	
100.00	Anonymous Gift for Scholarship use,	100.00	
$6,993,081.59	. . Amounts carried forward,	$6,683,775.24	$1,796,000.68

Principal, Aug. 1, 1905.		Principal, July 31, 1906.	
$6,993,081.59	. . Amounts brought forward, . . .	$6,683,775.24	$1,796,000.68
	BENEFICIARY AND LOAN FUNDS.		
51,576.57	**Rebecca C. Ames** (1903), . . .	52,176.32	
603.88	**Nathaniel Appleton** (1772), . .	632.50	
1,903.26	**Frank Bolles** Memorial (1894), .	1,993.46	
1,578.42	**William Brattle** (1717), ...	1,578.42	
58,511.62	**Daniel A. Buckley** (1905), . . .	62,801.70	
50,717.48	**Walter Channing Cabot** (1905),	50,921.47	
1,078.31	**Thomas Danforth** (1724), . . .	1,078.31	
5,448.73	**Moses Day** (1880), ...	5,448.73	
431.30	**John Ellery** (1738), ...	451.73	
1,333.34	Exhibitions 796), ...	1,333.34	
808.84	**Thomas Fitch** 1737), ...	821.09	
464.94	**Ephraim Flynt** (1723), ...	486.98	
161.64	**Henry Flynt** (1760), ...	169.32	
483.39	**Henry Gibbs** (1722), ...	506.28	
3,201.90	**John Glover** (1653), ...	3,353.67	
12,387.77	**Price Greenleaf** Aid (balance), .	13,943.80	
1,624.55	**Edwin A. W Harlow** 1905), .	1,701.58	
360.46	**Edward Holyoke** (1743), . . .	377.52	
2,441.40	**Robert Keayne** 659), ...	2,441.40	
26,230.00	**Bertram Kimball** (1903), . . .	26,185.00	
1,056.92	**Mary Lindall** 812)	1,056.92	
6,283.53	**Susan B. Lyman** (1899), ...	5,988.87	
	Susan B. Lyman Loans (College) (balance), ...	345.02	
226.46	**Anne Mills** (1725), ...	237.17	
10,906.81	**Munroe** 1880), ...	10,906.81	
2,058.86	**Palfrey** Exhibition (1821), ...	2,076.46	
4,884.96	**Dr. Andrew P. Peabody** Memorial (1896), ...	4,979.51	
484.48	Scholarship and Beneficiary Money Returned (balance	1,192.24	
215.65	**Joseph Sewall** 765), ...	225.89	
15,000.19	**Alexander Wheelock Thayer** (1899), ...	15,231.19	
11,155.10	**Quincy Tufts** (1877), ...	11,155.10	
291.19	**Benjamin Wadsworth** (1737), .	304.98	
	PRIZE FUNDS.		
	Anonymous Gift for a prize essay in the Department of History and Government (balance , ...	250.00	
50.00	**Jeremy Belknap** (balance) . . .		
1,599.37	**James Gordon Bennett** 1893), .	1,675.16	
402.46	**Philo Sherman Bennett** (1905),	421.52	
10,320.82	**Francis Boott** (1904), ...	10,720.04	
31,106.13	**Bowdoin** Prizes for Dissertations (1791),	31,414.67	
$7,310,472.32	. . Amounts carried forward, . . .	$7,010,359.41	$1,796,000.68

Principal, Aug. 1, 1905.		Principal, July 31, 1906.	
$7,310,472.32	. . Amounts brought forward, . . .	$7,010,359.41	$1,796,000.68
3,330.04	**Boylston** Prizes for Elocution (1817),	3,232.88	
5,348.36	**Coolidge** Debating (1899), ...	5,401.86	
50.00	**Dante** (balance), ...	50.00	
2,700.00	**Lloyd McKim Garrison** Prize and Medal (1904)	2,700.00	
1,845.47	**Edward Hopkins** Gift for "Deturs" (1718) (balance), ...	1,963.36	
1,087.05	**Sales** (1892), ...	1,093.57	
2,693.15	**John O. Sargent** (1889), ...	2,620.80	
7,000.00	**George B. Sohier** 1890), ...	7,000.00	
3,620.43	**Charles Sumner** (1874), ...	3,792.02	
3,908.74	**Robert N Toppan** (1894), . . .	3,944.03	
2,202.47	**Philip Washburn** (1899), . . .	2,231.84	
114,552.56	**David A. Wells** (1901), ...	114,439.97	7,158,829.74
	LIBRARY FUNDS.		
2,112.70	**Bowditch** (1861), ...	$2,151.54	
154.77	**Bright** (balance), ...	223.39	
672.93	Fund of the **Class of 1851** (1899),	704.83	
662.65	" " " **1851** (C. F. **Dunbar's** Gift) (1899), ...	694.08	
	Book Fund of the **Class of 1881** (1906), ...	3,500.00	
27,797.53	**Edwin Conant** (1892), ...	27,700,00	
25,967.15	**Constantius** (1886), ...	25,902.61	
5,323.77	**Denny** (1875), ...	5,369.64	
5,425.34	**Farrar** (1871), ...	5,395.93	
3,308.45	**Haven** (1844), ...	3,246.38	
10,157.40	**Hayes** (1885), ...	10,157.70	
5,279.53	**Hayward** (1864), ...	5,296.86	
1,123.26	**R. M. Hodges** (balance).		
2,389.81	**Hollis** (1781 , ...	2,434.02	
2,150.46	**Homer** (1871), ...	2,127.90	
502.86	**Jarvis** (1885), ...	526.70	
5,288.08	**Lane** (1863)	5,430.88	
26,899.26	**Lowell** (1881), ...	27,272.93	
60,406.31	**Minot** (1870)	60,296.68	
8,534.83	**Charles Eliot Norton** (1905), .	8,687.53	
7,197.08	**Lucy Osgood** (1873), ...	7,238.61	
7,082.51	**Mary Osgood** (1860), ...	7,026.98	
105.32	**Price Greenleaf** Income for Books (balance)	139.75	
3,916.67	**Sales** (1892), ...	3,918.60	
5,357.60	**Salisbury** (1858), ...	5,280.91	
20,152.27	**Sever** 878)	20,000.00	
3,958.31	**Shapleigh** (1801), ...	4,011.78	
$7,700,737.44	. . Amounts carried forward, . . .	$244,736.23	$8,954,830.42

Principal, Aug. 1, 1905.		Principal, July 31, 1906.	
$7,700,737.44	. . Amounts brought forward, . . .	$244,736.23	$8,954,830.42
104.39	**George B. Sohier** Income for Books (balance	160.69	
10,548.85	Subscription for Library (1859), . .	10,610.11	
37,684.11	**Sumner** 1875	37,532.94	
5,158.71	**Kenneth Matheson Taylor** (1899),	5,063.22	
12,164.18	**Daniel Treadwell** (1885), . . .	12,242.04	
5,278.00	**Ichabod Tucker** 1875), ...	5,018.28	
343.05	**Wales** Income for Books (balance),	645.58	
16,032.21	**Walker** (1875), ...	15,966.02	
5,250.41	**Ward** (1858), ...	5,260.87	
20,087.02	**J. Huntington Wolcott** (1891),	20,513.58	
100,000.00	**Eben Wright** (1883), ...	100,000.00	
2,541.22	Sundry Gifts for books (balances), .	3,711.02	
306.41	Sundry balances, ...	1,005.92	462,466.50
	DIVINITY SCHOOL FUNDS.		
11,086.73	Divinity School (balance), ...	$6,364.00	
71,427.02	New Endowment 1879), ...	71,427.02	
17,000.00	**Oliver Ames** (1880)	17,000.00	
525.00	**Hannah C. Andrews** (1836), . .	525.00	
890.00	**Daniel Austin** (1880), ...	1,115.26	
1,000.00	**Adams Ayer** (1869), ...	1,000.00	
15,275.00	**Joseph Baker** (1876), ...	15,275.00	
191.35	Beneficiary money returned (balance),	200.40	
4,452.34	**Rushton Dashwood Burr** (1894),	4,573.54	
37,583.74	**Bussey** Professorship (1862), . .	37,583.74	
2,177.95	**Joshua Clapp** (1836)	2,177.95	
5,000.00	**Edwin Conant** (1892), ...	5,000.00	
25,544.37	**Dexter** Lectureship (810), ...	25,544.37	
53,703.14	**Frothingham** Professorship(1892),	54,203.14	
1,050.00	**Abraham W Fuller** (1847), . .	1,050.00	
911.34	**Lewis Gould** (1852), ...	911.34	
821.29	**Louisa J. Hall** (1893), ...	857.86	
6,008.43	**Hancock** Professorship (1765), .	6,008.43	
77,600.81	**Charles L. Hancock** (1891), . .	77,600.81	
5,000.00	**Haven** (1898), ...	5,000.00	
1,050.00	**Samuel Hoar** (1857), ...	1,050.00	
10,000.00	**Henry P. Kidder** (1881), . . .	10,000.00	
9,184.69	**Henry Lienow** 1841), ...	9,184.69	
1,050.00	**Caroline Merriam** (1867), . . .	1,050.00	
16,015.81	**Parkman** Professorship 1814), .	16,015.81	
555.76	**John W Quinby** 1888), . . .	582.11	
1,000.00	**Abby Crocker Richmond** (1881),	1,000.00	
1,000.00	**John L. Russell** 1890) . . .	1,000.00	
10,000.00	**William B. Spooner** (1890), . .	10,000.00	
40,000.00	**Thomas Tileston** of New York Endowment (1879), ...	40,000.00	
$8,343,340.77	. . Amounts carried forward, . . .	$423,300.47	$9,417,296.92

Principal, Aug. 1, 1905.		Principal, July 31, 1906.	
$8,343,340.77	. . Amounts brought forward, . . .	$423,300.47	$9,417,296.92
5,250.00	**Mary P Townsend** (1861), . .	5,250.00	
2,100.00	**Winthrop Ward** 1862), ...	2,100.00	
55,845.73	**Winn** Professorship (1877), . . .	56,345.73	
	SCHOLARSHIP AND BENEFICIARY FUNDS.		
2,533.41	**Robert Charles Billings** Prize (1904), ...	2,553.47	
13,304.98	**Abner W Buttrick** (1880), . . .	13,360.64	
5,697.48	**Thomas Cary** (1820) . . .	5,727.52	
2,794.67	**George Chapman** (1834), . . .	2,827.15	
4,530.14	**Joshua Clapp** 1839), ...	4,564.86	
15,075.33	**Jackson** Foundation (1835), . . .	15,149.89	
5,526.54	**J Henry Kendall** (1863), . . .	5,588.52	
3,507.75	**Nancy Kendall** (1846), ...	3,534.03	
1,050.00	**William Pomroy** (1835), ...	1,050.00	541,352.28
	LAW SCHOOL FUNDS.		
322,908.17	Law School (balance), ...	$347,742.95	
522.53	**James Barr Ames** Loan (1904),	547.32	
3,864.97	**James Barr Ames** Prize (1898),	4,116.57	
74,662.83	**Bemis** Professorship 1879), . . .	78,201.86	
	Gift of **James Munson Barnard** and **Augusta Barnard** (balance),	2,021.81	
23,979.82	**Bussey** Professorship (1862)	23,979.82	
	James C. Carter Professorship (1906), ...	102,764.98	
	James Coolidge Carter Loan (1906), ...	12,047.40	
15,750.00	**Dane** Professorship (1829), ...	15,750.00	
	George Fisher Scholarship (1906),	3,564.84	
66.17	**Hughes** Loan (1903)	756.12	
47,021.25	Law School Book 1882), ...	47,021.25	
100,000.00	Law School Library (1898), ...	100,000.00	
8,340.81	**Royall** Professorship 781), . . .	8,340.81	
1,087.01	Scholarship money returned (balance),	496.20	
94,994.97	**Weld** Professorship (1882), . . .	94,994.97	842,346.90
	LAWRENCE SCIENTIFIC SCHOOL FUNDS.		
1,222.24	**Edward Austin** Loans repaid (bal.),	$374.28	
30,686.85	**John B. Barringer** (1873)	30,686.85	
6,142.56	**George H. Emerson** Scholarship (1903), ...	27,324.83	
5,767.19	**George A. Gardner** (1892), . .	5,794.12	
10,951.16	**Hennen Jennings** Scholarship (1898),	11,045.24	
61,536.43	**Abbott Lawrence** (1859), . . .	61,536.43	
50,375.00	**James Lawrence** (1865), ...	50,375.00	
$9,320,436.76	. . Amounts carried forward, . . .	$187,136.75	$10,800,996.10

Principal, Aug. 1, 1905.		Principal, July 31, 1906.	
$9,320,436.76	Amounts brought forward,	$187,136.75	$10,800,996.10
527.52	**Lawrence** Scientific School Loans repaid (balance),	188.00	
	Susan B. Lyman Loan (L. S. S.) (balance),	197.50	
40,805.73	Professorship of Engineering (1847),	40,805.73	
25,000.00	**Arthur Rotch** (1895),	25,000.00	
5,799.69	**Stuart Wadsworth Wheeler** (1898),	6,156.28	259,484.26
	GRADUATE SCHOOL OF APPLIED SCIENCE FUNDS.		
	Warren Delano Jr. Loan Scholarship. Gift (balance),	250.00	
	E. D. Peters Scholarship. Gift (bal.),	250.00	500.00
	MUSEUM OF COMPARATIVE ZOÖLOGY FUNDS.		
32,306.32	Museum of Comparative Zoölogy (bal.),	$35,714.52	
297,933.10	**Agassiz** Memorial (1875),	297,933.10	
7,594.01	Teachers' and Pupils' (1875),	7,594.01	
5,554.58	**Virginia Barret Gibbs** Scholarship (1892),	5,567.89	
50,000.00	**Gray** Fund for Zoölogical Museum (1859),	50,000.00	
108,720.83	**Sturgis Hooper** (1865),	107,934.77	
7,740.66	**Humboldt** (1869),	7,740.66	
5,000.00	**Willard Peele Hunnewell** (1901),	5,000.00	
117,469.34	Permanent (1859),	117,469.34	634,954.29
	GERMANIC MUSEUM FUNDS.		
	Emperor William (1906),	19,315.00	
	Unrestricted Gift (balance),	505.15	19,820.15
	PEABODY MUSEUM OF AMERICAN ARCHAEOLOGY AND ETHNOLOGY FUNDS.		
12,229.05	**Hemenway** Fellowship (1891),	$12,508.70	
28,355.56	**Peabody** Building (1866),	28,355.56	
47,335.10	**Peabody** Collection (1866),	47,335.10	
47,597.25	**Peabody** Professor (1866),	47,546.64	
30,188.44	**Thaw** Fellowship (1890),	30,171.24	
10,391.06	**Henry C. Warren** Exploration (1899),	10,413.09	
5,000.00	**Susan Cornelia Warren** (1902),	5,000.00	
5,830.23	**Robert C. Winthrop** Scholarship (1895),	5,801.57	
20,802.76	**Huntington Frothingham Wolcott** (1891),	20,725.63	
	Anonymous Gift for South American Expedition (balance),	416.66	208,274.19
$10,232,617.99	Amounts carried forward,		$11,924,028.99

Principal, ug. 1, 1905.			Principal, July 31, 1906.	
.0,232,617.99	. . Amounts brought forward, ...			$11,924,028.99

MEDICAL SCHOOL FUNDS.

Principal, ug. 1, 1905.			Principal, July 31, 1906.	
5,560.57	Medical School (balance), ...			
	Anonymous Fund in the Department of Theory and Practice (1906), .		$10,059.25	
11,324.85	**Edward Austin** (Bacteriological Laboratory) (1899), ...		11,573.60	
25,512.68	**Edward M. Barringer** (1881),		25,512.68	
114,679.35	**Robert C. Billings** (1900), . .		119,515.13	
6,264.02	**J. Ingersoll Bowditch** (1889),		6,242.36	
1.891.49	**Boylston** Fund for Medical Books (1800), ...		1,477.86	
21,899.83	**John B. & Buckminster Brown** Endowment (1896), ...		22,437.89	
	Bullard Professorship of Neuropathology (1906), ...		50,888.75	
93,945.52	**Caroline Brewer Croft** (1899),		94,033.35	
382,728.64	**Calvin** and **Lucy Ellis** (1899),		383,573.64	
	George Fabyan Foundation for Comparative Pathology (1906).			
101,917.84	**George Fabyan** Fund (1896), ...	$101,459.99		
27,893.82	**George Fabyan** Fund (addition of 1903, transferred from the Medical School Undertaking),	29,364.12		
	George F. Fabyan's additional gift (1906),	75,000.00	205,824.11	
1,836.08	**Samuel E. Fitz** (1884), ...		1,836.08	
3,573.82	**F. B. Greenough** (Surgical Research) (1901), ...		3,743.23	
102,422.36	**George Higginson** Professorship (1902), ...		102,777.16	
	Jackson Professorship of Clinical Medicine (1859).			
19,192.65	Former Principal, . .	$19,192.65		
25,000.00	Addition of 1903, transferred from the Medical School Undertaking,	25,000.00		
	Elliot C. Lee's gift of 1903, transferred from Medical School Real Estate upon his request,	25,000.00	69,192.65	
93,686.99	**Henry Jackson** Endowment, . .		96,127.75	
1,934.45	Medical Library (1872), ...		2,026.12	
$11,273,882.95	. . Amounts carried forward, . .		$1,206,841.61	$11,924,0

Principal, Aug. 1, 1905.			Principal, July 31, 1906.	
$11,273,882.95	Amounts brought forward,		$1,206,841.61	$11,924,028.99
53,027.52	**William O. Moseley** (1897),		53,041.05	
38,750.00	New Subscription 1888),		38,750.00	
407,575.00	**Henry L. Pierce** (Residuary) (1898),		426,894.05	
55,403.64	**Proctor** (1903),		56,244.54	
1,124,077.62	**John D. Rockefeller** Gift (1902),		1,177,358.92	
5,555.21	Gift for Pathological Laboratory,		5,573.63	
9,335.94	**Dr. Ruppaner** 1897),		9,335.94	
	George C Shattuck (1853).			
50,000 00	Former Principal,	$50,000.00		
27,000.00	Addition of 1902, transferred from the Medical School Undertaking,	27,000.00	77,000.00	
114,854.78	**James Stillman** Professorship (1902),		115,298.91	
5,099.84	School of Comparative Medicine (1899),		5,341.58	
7,167.76	Surgical Laboratory 1897),		6,889.18	
15,765.11	**Mary W Swett** (1884),		15,765.11	
20,000.00	**Samuel W Swett** (1884),		20,000.00	
2,000.00	**Quincy Tufts** (1879)		2,000.00	
14,095.33	**Warren** Fund for Anatomical Museum (1848),		13,651.12	
41,968.00	**Charles Wilder** (1900),		41,896.00	
37,382.90	**Henry Willard Williams** (1893),		39,154.85	
	Medical School Real Estate (special balance		1,005.12	
508.42	Gifts for Anatomical Research (bal.),		683.53	
16.26	Gifts for Pathological Dep't Library (balance),			
4,475.03	Sundry Gifts (balances),		5,109.22	
	FELLOWSHIP FUNDS.			
5,414.55	**Geo. Cheyne Shattuck** Memorial (1891),		5,446.22	
5,850.43	**Charles Eliot Ware** Memorial (1891),		5,812.72	
5,367.40	**John Ware** Memorial (1891),		5,396.80	
	SCHOLARSHIP FUNDS.			
5,133.23	Anonymous Aid (1905),		5,176.53	
5,204.28	**Lucius F Billings** (1900),		5,250.95	
5,815.03	**David Williams Cheever** (1889),		5,840.66	
3,190.45	**Cotting** Gift (1900),		3,216.66	
2,859.48	**Orlando W Doe** (1893),		2,935.00	
1.27	**John Foster** income for Medical Students (balance),		151.58	
5,749.17	**Lewis** and **Harriet Hayden** (1894),		5,712.15	
6,490.99	**Claudius M. Jones** (1893),		6,548.66	
$13,359,017.59	Amounts carried forward,		$3,369,322.29	$11,924,028.99

Principal, Aug. 1, 1905.		Principal, July 31, 1906.	
$13,359,017.59	. . Amounts brought forward, . .	$3,369,322.29	$11,924,028.99
5,531.65	Alfred Hosmer Linder 1895),	5,513.87	
8,681.81	Joseph Pearson Oliver (1904),	8,768.34	
5,792.19	Charles B. Porter 1897), . . .	5,761.73	
4,887.76	Charles Pratt Strong (1894), .	5,019.45	
6,520.75	Isaac Sweetser (1892), ...	6,579.85	
5,361.50	John Thomson Taylor (1899),	5,415.66	
5,476.22	Edward Wigglesworth (1897),	5,535.78	
	PRIZE FUNDS.		
3,796.81	Boylston (1803), ...	3,964.29	
7,488.37	William H. Thorndike (1895),	7,843.30	3,423,724.56
	DENTAL SCHOOL FUNDS.		
11,346.73	Dental School (balance), ...	$12,958.11	
2,265.85	Dental School Endowment (1880), .	2,265.85	
23,000.00	Henry C Warren Endowment (1889),	23,000.00	
9,615.28	Gifts for Building (1892), ...	13,622.98	
	Harvard Dental Alumni (1906), .	1,622.42	
	Dental School Real Estate (balance),	404.55	53,873.91
	OBSERVATORY FUNDS.		
50,460.00	Advancement of Astron. Science (1901),	$50,370.00	
20,212.51	Advancement of Astron. Science (1902),	18,815.01	
5,000.00	Thomas G. Appleton (1884), .	5,000.00	
2,500.00	J Ingersoll Bowditch (1889), .	2,500.00	
200,000.00	Uriah A. Boyden (1887), . . .	200,000.00	
547.55	Draper Memorial (balance), . .	2,272.51	
2,000.00	Charlotte Harris (1877), . . .	2,000.00	
45,000.00	Haven (1898), ...	45,000.00	
21,000.00	James Hayward (1866), . . .	21,000.00	
50,000.00	Observatory Endowment 882), .	50,000.00	
50,000.00	Paine Professorship (1886) . .	50,000.00	
273,932.07	Robert Treat Paine (1886), . .	273,932.07	
110,293.88	Edward B. Phillips (1849), . .	110,293.88	
14,125.15	Josiah Quincy (1866 , ...	14,794.67	
39,209.03	David Sears (1845	40,138.28	
13,380.00	Augustus Story (1871), ...	13,380.00	
42.35	Gift for publishing lunar photographs,	42.35	899,538.77
	BUSSEY INSTITUTION FUNDS.		
27,143.83	Bussey Institution (balance), . .	$28,826.48	
18,647.40	Woodland Hill (1895), ...	18,115.23	46,941.71
	ARNOLD ARBORETUM FUNDS.		
124,930.00	Arnold Arboretum (1899), ...	$125,815.00	
160,486.79	James Arnold (1872), ...	160,867.14	
28,905.81	Arboretum Construction Gifts (balance),	29,385.15	
12,500.00	Robert Charles Billings (1904),	12,500.00	
14,729,098.88	. . Amounts carried forward, . . .	$328,567.29	$16,348,107.94

Principal, Aug. 1, 1905.		Principal, July 31, 1906.	
$14,729,098.88	. . Amounts brought forward, . .	$328,567.29	$16,348,107.94
23,288.59	**William L. Bradley** (1897), . .	22,992.49	
2,308.06	**Bussey** Fund for the **Arnold** Arboretum (1903), ...	2,308.06	
	Francis Skinner (1906), ...	20,000.00	
3,280.79	Gift for books (balance), ...	24.85	373,892.69

OTHER FUNDS FOR SPECIAL PURPOSES.

PHILLIPS BROOKS HOUSE.

10,506.66	**Phillips Brooks** House Endowment (1901), ...	$10,506.66
11,343.64	**Ralph H. Shepard** (1900), . . .	11,343.64
6,786.54	**Ralph Hamilton Shepard** Memorial (1898)	6,888.76
5,706.27	**John W.** and **Belinda L. Randall** (1897), ...	5,776.73

WILLIAM HAYES FOGG ART MUSEUM.

475.19	**Fogg** Art Museum (balance), . . .	
50,000.00	**William Hayes Fogg** (1892), .	50,000.00
16,483.12	**Gray** Fund for Engravings (1858),	16,573.77
17,445.05	**William M. Prichard** (1898), .	17,831.69
34,252.74	**John Witt Randall** (1892), . . .	34,620.77

STILLMAN INFIRMARY.

2,312.93	**Stillman** Infirmary (balance), . .	1,096.74
5,274.92	**Stillman** Infirmary Gift (balance),	6,430.44
52,460.00	**Robert Charles Billings,** for **Stillman** Infirmary (1903), . .	54,946.60
5,590.82	Free Bed Fund of the **Class of 1868** (1898), ...	5,855.84
565.90	Free Bed Fund for **Stillman** Infirmary (1900)	592.73
3,147.60	**Herbert Schurz** Memorial Free Bed (1903)	3,296.82
2,775.82	**Henry P. Walcott** (1901), . . .	2,907.40

CLASS FUNDS.

1,422.23	Fund of the **Class of 1834** (1887),	1,482.23
8,315.59	" " " **1844** (1896),	8,661.67
10,744.45	" " " **1846** (1905),	11,387.10
3,725.00	" " " **1853** (1887),	3,725.00
7,869.00	" " " **1856** (1904),	7,855.50

CONSTRUCTION GIFTS.

421.74	Brighton Marsh Fence (balance), . .	421.74	
50,798.38	**Emerson** Hall, " . .		
447.26	Semitic Building, " . .	442.43	
287.17	**John Simpkins** Hall, " . .	159.47	
$15,067,134.34	. . Amounts carried forward, . . .	$262,803.73	$16,722,000.63

Principal, Aug. 1, 1905.		Principal, July 31, 1906.	
$15,067,134.34	. . Amounts brought forward, . . .	$262,803.73	$16,722,000.68
273,118.57	**George Smith** Bequest (1904), .	294,093.50	
3,146.41	**Stillman** Infirmary (Contagious Ward) (balance), ...		
31,306.15	Gift for new University Library Building (balance), ...	32,790.06	
	SUNDRY FUNDS.		
482,150.66	**Edward Austin** (1899), ...	481,015.07	
50,000.00	**Bright** Legacy (1880), ...	50,000.00	
22,974.70	Bursar's Sundry Accounts (balance),	15,038.08	
392,710.18	**Bussey** Trust (1861), ...	392.710.18	
164,138.13	**Calvin** and **Lucy Ellis** Aid (1899),	164,487.94	
3,171.50	**John Foster** (1840), ...	3,171.50	
596,522.01	Gains and Losses for General Investments (1891), ...	598,969.63	
788,865.31	**Price Greenleaf** (1887), ...	794,942.67	
29,939.33	**Henry Harris** (1883), ...	29,939.33	
1,387.03	**Harvard** Memorial Society (1898),	1,452.77	
54,132.65	**Robert Troup Paine** (1880), . .	55,762.48	
42,000.00	**James Savage** (1873), ...	42,000.00	
6,526.38	Gifts for Semitic Museum Collection (balance), ...	11,553.10	
5,009.04	Gifts for Excavations in Palestine (balance), ...	3,584.73	
252.96	Gifts for Cuban Teachers (balance),	137.96	
53.70	Sundry balances, ...		3,284,452.78
	FUNDS IN TRUST FOR PURPOSES NOT CONNECTED WITH THE COLLEGE.		
16,685.78	**Daniel Williams** (1716), ...	$16,665.80	
4,800.88	**Sarah Winslow** (1790), ...	4,792.55	21,458.35
$18,036,025.71			$19,977,911.71

RECEIPTS AND PAYMENTS FOR DEPARTMENTS.

DETAILED STATEMENT.

The following tables are intended to show in some detail the resources and expenditures of each Department of the University. The receipts include every gift and the income of every Fund, and the payments those for the specific object of every gift and Fund, stated separately except in the case of a general object such as salaries, in which case the payments are merged under the general heading.

If the income of a restricted Fund in any year is not wholly used, the surplus is added to the principal and the addition is temporary or permanent according to the terms of the restriction. Thus there may be a surplus in the restricted income of a Department and yet a deficit in its general account shown previously (see pp. 8–16).

If payments on account of a restricted Fund in any year exceed the income available, the excess is treated as a loan or "advance" from general investments, which must be repaid from the future income of the Fund.

If a gift for immediate use is not wholly spent before the end of the year, the balance is included in the statement of "Funds and Balances" beginning on page 58.

These tables are not found in the Treasurer's books, but are a transcript of the books and form a balanced statement as shown on page 128.

TABLE NO. I.

THE UNIVERSITY.

RECEIPTS.

Gift for capital account.		
William H. Baldwin, Jr. Bequest,	$2,000.00	
James C. Carter Fund,	100,000.00	
Richard W Foster Fund (additional),	12,500.00	
Henry L. Higginson Fund,	20,000.00	$134,500.00
Income of the following Funds:—		
Band Music,	$54.18	
William H. Baldwin, Jr.	41.38	
Andrew Bigelow,	234.63	
Stanton Blake,	237.00	
Charlotte F Blanchard,	226.15	
Samuel D. Bradford,	248.85	
James C. Carter,	2,764.98	
John W. Carter,	417.55	
Thomas Cotton,	7.35	
John Cowdin,	1,603.78	
George B. Dorr,	3,873.72	
George Draper,	1,618.70	
R. H. Eddy	1,896.90	
Harvard Ellis,	4,798.06	
Richard W. Foster,	715.93	
John Davis Williams French,	182.40	
Gore,	975.07	
John C. Gray,	835.09	
Henry Harris (½ income, see p. 104),	709.55	
Walter Hastings,	434.36	
Henry L. Higginson,	631.98	
George Baxter Hyde,	237.00	
Insurance and Guaranty (part, see p. 124),	1,047.41	
Leonard Jarvis,	799.73	
Henry P. Kidder,	474.00	
Joseph Lee,	334.04	
Theodore Lyman,	474.00	
Israel Munson,	746.55	
Henry S. Nourse (part, see p. 124),	1,350.21	
Francis E. Parker,	3,801.93	
William Perkins,	1,422.00	
Henry L. Pierce (Residuary) (part, see pp. 98, 115),	2,629.51	
President's,	3,021.75	
Retiring Allowance,	17,368.12	
John L. Russell,	1,107.74	
Isaac Sweetser,	2,223.68	
Seth Turner,	237.00	
William F. Weld,	3,340.38	63,122.66
Amount carried forward,		$197,622.66

TABLE NO. I, THE UNIVERSITY, CONTINUED.

RECEIPTS.

Amount brought forward,		$197,622.66
Balance remaining after dividing the net income among the Funds,	$1,237 78	
Care of the **Sarah Winslow** Fund,	5.69	
Sale of catalogues, calendars, directories, &c.,	1,831.16	
" loam,	15.00	
Use of houses by College officers,	1,550.00	
Use of land by **Harvard** Union,	1,260.00	
Gift for work on Memorial Hall clock,	178.72	6,078.35
		$203,696.01

PAYMENTS.

Overseers' Expenses.			
Printing President's Annual Report,		$1,228.92	
" Treasurer's " "		464.35	
" other reports, ballots, etc.,		244.17	
Advertising,		61.50	
Auditing Treasurer's accounts,		150.00	
Other expenses,		100.44	$2,249.38
Office Expenses.			
President's,			
Clerical services,	$1,091.25		
Other expenses,	468.67	$1,559.92	
Treasurer's,			
Clerical services,	$1,755.00		
Rent of safes,	750.00		
Other expenses,	791.38	3,296.38	
Bursar's,			
Clerical services,	$4,843.43		
Other expenses,	1,922.59	6,766.02	
Publication Agent's,			
Clerical and other services,	$2,194.90		
Postage and stationery,	1,251.17		
Other expenses,	835.00	4,281.07	
Inspector of Grounds and Buildings,			
Clerical and other services,	$1,164.50		
Improvements and repairs,	413.31		
Other expenses,	222.13	1,799.94	
Janitor's,			
Improvements and repairs,	$310.55		
Other expenses,	42.81	353.36	
Corporation Rooms (fuel, rent, &c.),		2,537.90	20,594.59
Amount carried forward,			$22,843.97

TABLE NO. I, THE UNIVERSITY, CONTINUED.

PAYMENTS.

Amount brought forward,			$22,843.97
Salaries.			
President,			
From the University,	$6,000.00		
" President's Fund,	3,131.68		
" Thomas Cotton Fund,	7.63	$9,139.31	
Treasurer,		6,000.00	
Comptroller,		3,750.00	
Bursar,		4,000.00	
Assistant Bursar,		2,250.00	
Secretary of the Corporation,		3,000.00	
Secretary of the Board of Overseers,		200.00	
Commencement Marshal,		100.00	
Secretary for Appointments,		1,250.00	
Regent,		1,000.00	
Medical Visitor,		3,500.00	
Publication Agent,		2,500.00	
Inspector of Grounds and Buildings,		3,500.00	
Clerks, Treasurer's office,		4,000.00	
Bursar's Assistant,		1,800.00	45,989.31
Retiring Allowances.			
From Retiring Allowance Fund,		$17,368.12	
" University income,		8,406.02	25,774.14
Memorial Hall and Sanders Theatre.			
Janitor service,		$160.93	
Lighting,		22.63	
Heating,		1.80	
Supplies,		2.00	
Insurance,		133.29	
Repairs,		437.07	757.72
Payments made from University income on the following accounts: —			
Appleton Chapel (part, see Table XIX, page 121),		$6,412.53	
Phillips Brooks House (part, see Table XX, page 122),		1,829.41	
William Hayes Fogg Art Museum (part, see Table XVII, page 119),		2,772.49	
Germanic Museum (part, see Table XVI, page 118),		332.72	
Peabody Museum of American Archaeology and Ethnology (part, see Table XIV, page 117),		1,248.32	
Semitic Museum (part, see Table XV, page 118),		1,778.82	14,374.29
Amount carried forward,			$109,739.43

TABLE NO. I, THE UNIVERSITY, CONTINUED.

PAYMENTS.

Amount brought forward,			$109,739.43
General Expenses.			
Labor,		$8,702.46	
Watchmen,		2,398.70	
University Gazette,		653.83	
Annual Catalogue,		2,605.75	
Quinquennial Catalogue,		666.90	
Guide Book,		85.00	
Expenses of Medical Visitor,		213.31	
Diplomas,		5.60	
Commencement Day expenses,		550.30	
Expenses on portraits in Memorial Hall,		91.64	
Setting Tablet to President Walker, in Appleton Chapel,		25.00	
Association of American Universities, conference,		25.00	
American Medical Association meetings,		257.56	
American Philosophical and Psychological Association meetings,		166.25	
Other hospitality,		150.70	
Legal services,		25.00	
Mercantile agency,		755.00	
Plank walks,		257.41	
Driveways and gravel walks,		1,050.65	
Watering driveways and streets,		391.75	
Repairs and improvements,		588.44	
Taxes on Harvard Union,	$4,845.00		
Less repaid by Harvard Union,	4,845.00		
Freight, supplies, and sundries,		557.16	20,223.41
			$129,962.84

Table No. II.

THE COLLEGE.

RECEIPTS.

Gifts for Capital Account.		
Julia Amory Appleton Fellowship Fund,	$20,000.00	
Daniel Austin Fund (additional), ...	1,576.86	
William H. Baldwin, Jr. 1885 Fund, . .	5,588.96	
Francis James Child Memorial Fund (additional), ...	50.00	
George H. Emerson Scholarship Fund (additional), ...	20,656.20	
Francis Parkman Fellowship Fund, . . .	10,000.00	
Nelson Robinson Jr. Additional Fund, . .	175,000.00	
Robert W. Sayles Fund, ...	5,000.00	
Teachers' Endowment Fund (additional), . . .	1,103,040.93	
Twenty-fifth Anniversary Fund of the **Class of 1881**, ...	88,570.00	
Jerome Wheelock Fund (additional), . .	10.00	$1,429,492.95
Income of Funds for Instruction, and Gifts for Salaries.		
Alford Professorship, ...	$1,315.30	
John B. Barringer, ...	1,454.56	
Boylston Professorship, ...	1,343.17	
Class of 1880 (part, pp. 98, 113), ...	3,259.43	
Class Subscription, ...	7,139.29	
Paul Dudley, ...	170.55	
Eaton Professorship (part, see p. 124), . . .	5,965.17	
Eliot Professorship, ...	1,024.74	
Eliot " (**Jon. Phillips'** Gift), .	350.00	
Calvin and **Lucy Ellis** Aid (part, see p. 84),	2,793.47	
Erving Professorship, ...	165.90	
Fisher "	1,705.97	
Henry Flynt (part, see p. 124), ...	5.57	
Fund for Permanent Tutors, ...	769.78	
Godkin Lecture, ...	613.50	
Gospel Church (½ income, see p. 124), ...	160.93	
Asa Gray Professorship, ...	1,016.78	
Gurney (part, see p. 124), ...	8,307.94	
Hersey Professorship (⅗ income, see p. 104),	574.97	
Hersey Professorship (**Thomas Lee's** gift),	1,030.67	
Hollis " (Divinity), ...	1,636.15	
Hollis " (Mathematics), ...	177.61	
Ingersoll Lecture (part, see p. 86), ...	143.94	
Abbott Lawrence, ...	2,916.81	
James Lawrence, ...	2,387.78	
Lectures on Political Economy, ...	508.98	
Amounts carried forward, ...	$46,938.96	$1,429,492.95

TABLE NO. II, THE COLLEGE, CONTINUED.

RECEIPTS.

Amounts brought forward, ...		$46,938.96	$1,429,492.95
Income of Funds for Instruction, and Gifts for Salaries (*continued*).			
Henry Lee Professorship, ...		5,208.12	
Thomas Lee, for Reading, ...		748.78	
Arthur T. Lyman, ...		1,185.00	
McLean Professorship, ...		2,041.19	
William Belden Noble Lectures, ...		1,151.54	
Francis Greenwood Peabody (part, see p. 86), ...		800.00	
Daniel H. Peirce, ...		676.21	
Perkins Professorship, ...		995.40	
Plummer Foundation, ...		1,185.95	
Pope Professorship, ...		2,488.50	
Professorship of Engineering, ...		1,934.20	
Professorship of Hygiene (part, see p. 124), . .		7,998.03	
Nelson Robinson Jr. (part, see pp. 81, 86), .		18,506.49	
Arthur Rotch, ...		1,185.00	
Rumford Professorship, ...		2.671.89	
Gurdon Saltonstall, ...		2,844.00	
Smith Professorship, ...		1,096.84	
Josiah Stickney, ...		644.17	
Teachers' Endowment, ...		77,575.62	
Unknown Memorial (part, see p. 86), ...		3,028.21	
Henry Villard, ...		1,670.19	
Henry W. Wales (part, see p. 97).			
Wales Professorship, ...		1,500.00	
Henry C. Warren (part, see p. 86), ...		4,266.67	
Sylvester Waterhouse, ...		291.46	
David A. Wells (part, see p. 85), ...		4,500.00	
Jerome Wheelock, ...		1.28	
Gifts for salaries and lectures, ...		2,625.00	195,758.70
Income of Funds for General Purposes.			
John W. P. Abbot (accumulating), ...		$487.89	
John A. Blanchard, ...		49.77	
Edward W. Codman (part, see p. 124), . .		14,655.32	
Jonathan Phillips, ...		1,493.10	
William M. Spackman, ...		118.50	
Twenty-fifth Anniversary Fund of the **Class of 1881**, ...		353.98	17,158.56
Income of Fellowship Funds, and Gifts for Fellowships.			
Julia Amory Appleton.			
Gift, ...	$1,000.00		
Interest, ...	157.98	1,157.98	
Amounts carried forward, ...		$1,157.98	$1,642,410.21

TABLE NO. II, THE COLLEGE, CONTINUED.

RECEIPTS.

Amounts brought forward, ...		$1,157.98	$1,642,410.21
Income of Fellowship Funds, and Gifts for Fellowships (*continued*).			
Edward Austin (part, see pp. 81, 84, 105, 109).			
Edward Austin Fellowships, ...		2,000.00	
Austin Teaching "		14,000.00	
Cercle Français de l'Université **Harvard** (gift),		600.00	
George W. Dillaway, ...		248.85	
Ozias Goodwin Memorial, ...		546.24	
Harris, ...		528.32	
Inter-municipal Committee on Household Research (gift), ...		350.00	
Edward William Hooper, ...		1,204.43	
John Thornton Kirkland, ...		518.22	
Henry Lee Memorial, ...		561.79	
Charles Eliot Norton, ...		614.22	
Robert Treat Paine, ...		615.68	
John Parker, ...		2,794.18	
Francis Parkman, ...		296.25	
Nelson Robinson Jr. (part, see pp. 80, 86).			
Nelson Robinson Jr. Fellowship, . . .		500.00	
Rogers, ...		1,529.31	
Henry Bromfield Rogers Memorial, . . .		554.06	
South End House (gifts), ...		370.00	
John Tyndall, ...		564.34	
James Walker, ...		534.72	
Whiting, ...		1,101.05	31,189.64
Income of Scholarship Funds, and Gifts for Scholarships.			
Abbot, ...		$180.93	
Alford (accumulating), ...		103.10	
Edward Austin (part, see pp. 81, 84, 105, 109).			
Austin Scholarships in Architecture, . . .		300.00	
" " for Teachers, ...		2,542.66	
Bartlett, ...		255.96	
Bassett, ...		269.33	
Bigelow, ...		632.84	
Borden (accumulating), ...		128.74	
Bowditch, ...		5,420.33	
Bright Scholarships.			
Interest on balance, ...	$168.08		
Bright Legacy (½ income, see p. 97),	1,185.00	1,353.08	
Browne, ...		184.20	
Morey Willard Buckminster, ...		251.74	
Burr, ...		1,609.80	
Amounts carried forward, ...		$13,232.71	$1,673,599.85

TABLE NO. II, THE COLLEGE, CONTINUED.

RECEIPTS.

Amounts brought forward, ...	$13,232.71	$1,673,599.85
Income of Scholarship Funds, and Gifts for Scholarships (*continued*).		
Ruluff Sterling Choate, ...	292.13	
Class of 1802, ...	399.49	
" **1814**, ...	156.18	
" **1815 (Kirkland)**, ...	315.83	
" **1817**, ...	219.89	
" **1828**, ...	167.27	
" **1835**, ...	238.94	
" **1841**, ...	246.72	
" **1852 (Dana)**, ...	246.67	
" **1856**, ...	756.65	
" **1867**, ...	228.61	
" **1877**, ...	248.28	
" **1883**, ...	287.72	
Crowninshield, ...	579.89	
Warren H. Cudworth (gift), ...	600.00	
Francis H. Cummings, ...	276.48	
Warren Delano, Jr. Loan (gift), ...	250.00	
George and **Martha Derby**, ...	264.54	
Julius Dexter, ...	244.96	
Orlando W. Doe, ...	135.42	
William Samuel Eliot, ...	261.60	
George H. Emerson (part, see p. 124), . .	1,201.07	
Joseph Eveleth (part, see p. 105), ...	1,365.16	
Fall River, ...	104.09	
Farrar, ...	301.89	
Richard Augustine Gambrill, ...	549.41	
Charles Haven Goodwin, ...	367.82	
Benjamin D. Greene, ...	206.38	
Price Greenleaf (part, see pp. 84, 97, 98).		
Price Greenleaf Scholarships, ...	3,000.00	
Harvard Club of Buffalo (gift), ...	200.00	
" " Chicago "	300.00	
" " San Francisco (gift), ...	450.00	
" " St. Louis "	300.00	
John Appleton Haven, ...	494.43	
William Hilton (part, see p. 105), ...	698.50	
Ebenezer Rockwood Hoar, ...	518.13	
Levina Hoar, for the town of Lincoln, ...	308.24	
R. M. Hodges (part, see p. 98).		
Hodges Scholarship, ...	284.77	
Hollis, ...	302.41	
Henry B. Humphrey, ...	519.36	
Amounts carried forward, ...	$31,121.64	$1,673,599.85

TABLE NO. II, THE COLLEGE, CONTINUED.

RECEIPTS.

Amounts brought forward, ...		$31,121.64	$1,673,599.85
Income of Scholarship Funds, and Gifts for Scholarships (*continued*).			
Hennen Jennings, ...		519.08	
Charles L. Jones, ...		1,473.62	
Lawrence Scientific School Association (gift),		150.00	
George Emerson Lowell, ...		499.92	
Markoe, ...		252.03	
Matthews Scholarships.			
Interest on balance, ...	$155.76		
Matthews Hall, half net rents, . .	5,100.70	5,256.46	
William Merrick, ...		296.34	
Morey, ...		397.78	
Lady Mowlson, ...		279.00	
Howard Gardner Nichols, ...		273.07	
Lucy Osgood, ...		286.49	
George Foster Peabody, ...		312.66	
Pennoyer, ...		318.81	
Rebecca A. Perkins, ...		209.65	
E. D Peters (gift), ...		250.00	
Philadelphia, ...		517.70	
Wendell Phillips Memorial, ...		73.90	
Ricardo Prize (gift), ...		350.00	
Rodger, ...		57.92	
Henry Bromfield Rogers, ...		166.99	
Edward Russell, ...		275.54	
Sales, ...		269.33	
Saltonstall, ...		537.47	
Leverett Saltonstall, ...		410.01	
Mary Saltonstall. Income, ...	$330.14		
Loan repaid, . .	100.00	430.14	
James Savage (part, see pp. 98, 114).			
Savage Scholarship, ...		300.00	
Sever, ...		154.57	
Sewall, ...		529.84	
Shattuck, ...		2,350.90	
Slade, ...		290.09	
Dunlap Smith, ...		200.14	
Story, ...		216.10	
Stoughton, Use of pasture, ...	$100.00		
Interest, ...	82.57	182.57	
Swift, ...		175.81	
Thayer, ...		3,782.33	
Gorham Thomas, ...		204.53	
Toppan, ...		368.96	
Amounts carried forward, ...		$53,741.39	$1,673,599.85

Table No. II, The College, continued.

RECEIPTS.

Amounts brought forward, . . .		$53,741.39	$1,673,599.85
Income of Scholarship Funds and Gifts for Scholarships (*continued*).			
Townsend, ...		1,226.43	
Walcott, ...		241.22	
Christopher M. Weld, ...		508.98	
Jacob Wendell, ...		257.95	
Whiting, ...		560.65	
Josiah Dwight Whitney, ...		239.18	
Mary L. Whitney, ...		517.20	
Charles Wyman, ...		479.83	
Anonymous Gift for Scholarship use, ...		100.00	57,872.83
Income of Beneficiary and Loan Funds, and Repayments.			
Rebecca C. Ames.			
Interest, ...	$2,444.75		
Loan repaid, ...	50.00	$2,494.75	
Nathaniel Appleton, ...		28.62	
Edward Austin (see pp. 81*, 105, 109).			
For Loans, ...	$1,511.30		
Loans repaid by Special Students, .	54.23	1,565.53	
Edward Austin Loans Repaid (L. S. S.), . .		429.86	
Frank Bolles Memorial, ...		90.20	
William Brattle, ...		74.79	
Daniel A. Buckley, ...		4,341.10	
Walter Channing Cabot, ...		2,403.99	
Thomas Danforth, ...		51.10	
Moses Day, ...		258.28	
Calvin and **Lucy Ellis** Aid (part, see p. 79),		4,002.81	
John Ellery, ...		20.43	
Exhibitions, ...		63.19	
Thomas Fitch, ...		38.35	
Ephraim Flynt, ...		22.04	
Henry Flynt, ...		7.68	
Henry Gibbs, ...		22.89	
John Glover, ...		151.77	
Price Greenleaf (part, see pp. 82, 97, 98).			
Price Greenleaf Aid, ...		16,370.78	
Edwin A. W. Harlow, ...		77.03	
Edward Holyoke, ...		17.06	
Robert Keayne, ...		115.70	
Bertram Kimball, ...		1,185.00	
Lawrence Scientific School Loan, repayments,		556.75	
Mary Lindall, ...		50.10	
Susan B. Lyman, ...		297.86	
Anne Mills, ...		10.71	
Amounts carried forward, ...		$34,748.37	$1,731,472.68

TABLE NO. II, THE COLLEGE, CONTINUED.

RECEIPTS.

Amounts brought forward,		$34,748.37	$1,731,472.68
Income of Beneficiary and Loan Funds, and Repayments (*continued*).			
Munroe,		516.99	
Palfrey Exhibition,		97.60	
Dr. Andrew P. Peabody Memorial,		231.55	
Scholarship and Beneficiary Money Returned.			
Loans repaid,	$1,445.76		
Gift,	25.00	1,470.76	
Joseph Sewall,		10.24	
Alexander W. Thayer (part, see p. 124),		231.00	
Quincy Tufts,		528.75	
Benjamin Wadsworth,		13.79	
Stuart Wadsworth Wheeler.			
Interest,	$274.92		
Loans repaid,	81.67	356.59	38,205.64
Income of Prize Funds, and gifts for prizes.			
Anonymous gift for a prize essay in the Department of History and Government (balance),		$250.00	
James Gordon Bennett,		75.79	
Philo Sherman Bennett,		19.06	
Francis Boott,		489.22	
Bowdoin Prizes for Dissertations,		1,474.42	
Boylston Prizes for Elocution,		157.84	
Coolidge Debating,		253.50	
Lloyd McKim Garrison,		127.46	
Edward Hopkins Gift for "Deturs."			
From Trustees,	$208.86		
Interest on balance,	87.45	296.31	
Sales,		51.52	
John O. Sargent,		127.65	
George B. Sohier (part, see p. 97),		250.00	
Charles Sumner,		171.59	
Robert N. Toppan,		185.29	
Philip Washburn,		104.37	
David A. Wells (part, see p. 80),		914.39	4,948.41
Income of Sundry Funds for Special Purposes.			
Botanic Department (part, see p. 112).			
One-fourth for Cryptogamic Herbarium,		471.39	
One-eighth for Laboratories of Botany,		235.70	
William H. Baldwin, Jr. 1885,		198.65	
Francis James Child Memorial,		542.82	
Classical Publication Fund of the **Class of 1856.**			
Interest,	$336.78		
Sales,	156.37	493.15	
Amounts carried forward,		$1,941.71	$1,774,626.73

TABLE No. II, THE COLLEGE, CONTINUED.

RECEIPTS.

Amounts brought forward, ...		$1,941.71	$1,774,626.73
Income of Sundry Funds for Special Purposes (*continued*).			
George A. Gardner, ...		273.36	
George Silsbee and **Ellen Sever Hale**, .		250.65	
Harvard Oriental Series, ...		713.99	
Ingersoll Lecture (part, see p. 79), ...		143.26	
Music Department, ...		52.19	
Francis Greenwood Peabody (part, see p. 80),		3,978.87	
Nelson Robinson Jr. (part, see pp. 80, 81),		5,655.78	
Robert W. Sayles, ...		118.50	
George William Sawin, ...		219.51	
John E. Thayer, ...		786.51	
Elizabeth Torrey, ...		48.11	
Henry Warren Torrey. Interest, .	$533.44		
Sales, . .	332.38	865.82	
Unknown Memorial (part, see p. 80), ...		1,800.00	
Cyrus M. Warren, ...		307.58	
Henry C. Warren (part, see p. 80), ...		1,421.28	
Chauncey Wright, ...		51.00	18,628.12
Sundry Gifts.			
For the Department of Architecture.			
Gift for equipment, ...	$2,500.00		
Interest, ...	158.14	$2,658.14	
Gift for a painting, interest, ...		5.31	
For the Department of The Classics.			
Gifts for Classical Library, ...		63.11	
" the Museum of Classical Archaeology,		300.00	
For the Department of Economics.			
For books, ...	$200.00		
For maps and charts, ...	250.00	450.00	
For the Department of Education, for books, . .		123.39	
For the Department of Mathematics, for books, .		15.00	
For the Department of Mining and Metallurgy.			
Gift, ...	$1,450.00		
Interest, ...	3.01	1,453.01	
For the Department of Music. Gifts, .	$80.00		
Less included in gifts for service in Department Libraries, ...	49.00	31.00	
For the Philosophical Library.			
Gifts, ...	$4,000.00		
Interest, ...	18.08	4,018.08	
For the Semitic Library. Interest, ...		2.10	
For extra copies of contributions from the Zoölogical Laboratory, ...		50.00	
Amounts carried forward, ...		$9,169.14	$1,793,254.85

Table No. II, The College, continued.

RECEIPTS.

Amounts brought forward, ...		$9,169.14	$1,793,254.85
Sundry Gifts (*continued*).			
For the Bermuda Biological Station.			
Gifts, ...	$500.00		
Interest, ...	29.42	529.42	
For the Engineering Camp at Squam Lake.			
Gift, ...	$790.76		
Interest on balance, ...	30.00	820.76	
For the School for Social Workers. Interest, .		49.14	
For the Ethics of the Social Questions. Interest,		67.74	
For furnishings of the Department of Social Ethics in Emerson Hall. Interest, ...		150.54	
For furnishing Emerson Hall. Interest, ...		445.81	
For equipment of the Psychological Laboratory. Interest, ...		93.68	
For evening use of Warren House libraries.			
Gift, ...	$47.00		
Less included in gifts for service in Department Libraries, ...	35.00	12.00	
For Plantations in the College Yard. Interest, .		67.55	
Towards the expenses of the Committee on the Publication of Academic Distinctions, ...		40.00	11,445.78
Receipts from Students.			
Tuition fees, regular courses, . . .	$395,932.50		
“ “ Summer Schools, . .	20,277.50		
“ “ School for Social Workers,	370.00	$416,580.00	
Examination fees.			
Admission, ...	$4,779.52		
Condition, Make-up and Advanced Standing, ...	2,100.00		
Doctor of Philosophy, ...	60.00	6,939.52	
Graduation fees, ...		7,560.00	
Laboratory fees.			
Astronomy, ...	$1,165.00		
Botany, ...	1,085.00		
Chemistry, ...	14,409.42		
Engineering, ...	2,426.50		
Engineering, Squam Lake, . . .	2,060.00		
Geology, ...	1,645.00		
Hygiene, ...	1,785.00		
Mineralogy, ...	480.00		
Mining and Metallurgy, ...	2,568.54		
Philosophy, ...	100.00		
Physics, ...	4,798.50		
Zoölogy, ...	1,500.00	33,972.96	
Amounts carried forward, ...		$465,052.48	$1,804,700.63

TABLE NO. II, THE COLLEGE, CONTINUED.

RECEIPTS.

Amounts brought forward, ...			$465,052.48	$1,804,700.63
Receipts from Students (*continued*).				
College dormitories, ...		$92,936.03		
Less the following items: —				
Receipts from dormitories belonging to University Houses and Lands account, credited under income of the Funds which constitute the principal of this account, .	$15,897.50			
One-half net income from Matthews Hall, credited under income of Matthews Scholarships, .	5,100.70	20,998.20	71,937.83	
Summer School excursions, surplus, ...			78.84	537,069.15
Sundries.				
Repayment, in part, of special appropriation for specimens for the Department of Mineralogy and Petrography, ...			120.00	
Sale of tickets to Commencement Lunch, ...			372.50	
" University Hymn Books, ...			107.30	
" Annals of Mathematics, ...			424.24	
" Propositions in Geometry, ...			107.46	
" Infinite Series, ...			100.45	
" Manual of Engineering, ...			386.69	
" Elementary Exercises in Physics, ...			245.26	
" Hand-book of American History, ...			151.40	
" History 1 publications, ...			481.58	
" Harvard Psychological Review, . . .			67.95	
" publications for the Department of the Classics, ...			301.03	
" publications for the Sanskrit Department,			259.56	
" old examination papers, ...			497.04	
" other publications, ...			832.81	
" timber at Squam Lake, ...		$600.00		
Less commission, ...		60.00	540.00	
Sundry receipts at the Engineering Camp at Squam Lake, ...			11,250.42	
Pasturage, Squam Lake, ...			40.00	
Interest on bank deposit, Squam Lake account, .			39.12	
" account of tuition fees paid in advance,			2,073.78	
Deposits for keys to Department Libraries, . . .			54.12	
Insurance awards, ...			396.00	18,848.71
				$2,360,618.49

TABLE NO. II, THE COLLEGE, CONTINUED.

PAYMENTS.

From Fellowship Funds and Gifts.			
Julia Amory Appleton,		$1,000.00	
Edward Austin (part, see pp. 89, 91, 107, 109).			
Edward Austin Fellowships,		2,000.00	
Austin, Teaching "		14,000.00	
Cercle Français de l'Université Harvard,		600.00	
George W Dillaway		150.00	
Ozias Goodwin Memorial,		675.00	
Harris,		750.00	
Edward William Hooper,		500.00	
Inter-Municipal Committee on Household Research,		350.00	
Henry Lee Memorial,		450.00	
Charles Eliot Norton,		900.00	
Robert Treat Paine,		500.00	
John Parker,		2,675.00	
Nelson Robinson Jr. (part, see p. 93),			
Nelson Robinson Jr. Fellowship,		500.00	
Rogers,		1,087.50	
South End House,		320.00	
John Tyndall,		500.00	
James Walker,		250.00	
Whiting,		480.00	$27,687.50
From Scholarship Funds and Gifts.			
Abbot,		$150.00	
Edward Austin (part, see pp. 89, 91, 107, 109).			
Austin Scholarships in Architecture,	$300.00		
Austin Scholarships for Teachers,	2,542.66	2,842.66	
Bartlett,		250.00	
Bassett,		270.00	
Bigelow,		500.00	
Bowditch,		4,930.00	
Bright Scholarships,		1,125.00	
Browne,		150.00	
Morey Willard Buckminster,		120.00	
Burr,		1,280.00	
Ruluff Sterling Choate,		275.00	
Class of 1802,		325.00	
" 1814,		175.00	
" 1815 (Kirkland),		250.00	
" 1817,		175.00	
" 1828,		150.00	
" 1835,		165.00	
" 1841,		200.00	
" 1852 (Dana),		200.00	
Amounts carried forward,		$13,532.66	$27,687.50

TABLE NO. II, THE COLLEGE, CONTINUED.

PAYMENTS.

Amounts brought forward, . . .	$13,532.66	$27,687.50
From Scholarship Funds and Gifts (*continued*).		
Class of 1856, ...	600.00	
" **1867,**	175.00	
" **1877,**	280.00	
" **1883,**	225.00	
Crowninshield, ...	540.00	
Warren H. Cudworth, ...	600.00	
George and **Martha Derby,**	250.00	
Julius Dexter, ...	180.00	
Orlando W. Doe, ...	100.00	
William Samuel Eliot, ...	250.00	
George H. Emerson (part, see p. 125), . .	675.00	
Joseph Eveleth (part, see p. 107), ...	1,000.00	
Fall River, ...	80.00	
Farrar, ...	250.00	
Richard Augustine Gambrill, ...	450.00	
Charles Haven Goodwin, ...	300.00	
Greene, ...	150.00	
Price Greenleaf (part, see pp. 92, 98).		
Price Greenleaf Scholarships, ...	3,020.00	
Harvard Club of Buffalo, ...	280.00	
" " Chicago, ...	300.00	
" " San Francisco, ...	450.00	
" " St. Louis, ...	300.00	
John Appleton Haven, ...	480.00	
William Hilton, ...	540.00	
Ebenezer Rockwood Hoar, ...	425.00	
Levina Hoar, for the town of Lincoln, ...	350.00	
R. M. Hodges (part, see p. 99).		
Hodges Scholarship, ...	250.00	
Hollis, ...	250.00	
Henry B. Humphrey, ...	450.00	
Hennen Jennings, ...	425.00	
Charles L. Jones, ...	1,200.00	
Lawrence Scientific School Association, . . .	150.00	
George Emerson Lowell, ...	380.00	
Markoe, ...	150.00	
Matthews, ...	4,620.00	
William Merrick, ...	225.00	
Morey, ...	325.00	
Lady Mowlson, ...	225.00	
Howard Gardner Nichols, ...	225.00	
Lucy Osgood, ...	135.00	
George Foster Peabody, ...	250.00	
Amounts carried forward, . . .	$35,042.66	$27,687.50

TABLE NO. II, THE COLLEGE, CONTINUED.

PAYMENTS.

Amounts brought forward,		$35,042.66	$27,687.50
From Scholarship Funds and Gifts (*continued*).			
Pennoyer,		190.00	
Rebecca A. Perkins,		150.00	
Philadelphia,		425.00	
Ricardo Prize,		350.00	
Henry Bromfield Rogers,		150.00	
Edward Russell,		225.00	
Sales,		200.00	
Saltonstall,		425.00	
Leverett Saltonstall,		325.00	
Mary Saltonstall,		300.00	
James Savage (part).			
Savage Scholarship,		300.00	
Sever,		150.00	
Sewall,		320.00	
Shattuck,		2,100.00	
Slade,		210.00	
Dunlap Smith,		180.00	
Story,		175.00	
Thayer,		3,000.00	
Gorham Thomas,		150.00	
Toppan,		300.00	
Townsend,		1,000.00	
Walcott,		200.00	
Christopher M. Weld,		400.00	
Jacob Wendell,		300.00	
Whiting,		450.00	
Josiah Dwight Whitney,		200.00	
Mary L. Whitney,		300.00	
Charles Wyman,		400.00	
University, Graduate School,		1,400.00	
" **Lawrence** Scientific School,		1,310.00	
Normal, " " "		600.00	
Architectural League,		300.00	51,527.66
From Beneficiary and Loan Funds.			
Rebecca C. Ames,		$1,895.00	
Edward Austin (part, see pp. 89^{2}, 107, 109).			
Loans to L. S. S. students,	$2,455.00		
" Special "	246.12	2,701.12	
Edward Austin Loans Repaid (L.S.S.),		1,277.82	
William Brattle,		74.79	
Walter Channing Cabot,		2,200.00	
Thomas Danforth,		51.10	
Moses Day,		258.28	
Amounts carried forward,		$8,458.11	$79,215.16

TABLE NO. II, THE COLLEGE, CONTINUED.

PAYMENTS.

Amounts brought forward,		$8,458.11	$79,215.16
From Beneficiary and Loan Funds (*continued*).			
Calvin and **Lucy Ellis** Aid.			
Beneficiaries,	$3,613.00		
Genealogical expenses,	30.00	3,643.00	
Exhibitions,		63.19	
Thomas Fitch,		26.10	
Price Greenleaf (part, see pp. 90, 98).			
Price Greenleaf Aid,		14,814.75	
Robert Keayne,		115.70	
Bertram Kimball,		1,230.00	
Lawrence Scientific School Loans Repaid,		896.27	
Mary Lindall,		50.10	
Susan B. Lyman.			
Loans to College students,		50.00	
Munroe,		516.99	
Palfrey Exhibition,		80.00	
Dr. Andrew P. Peabody Memorial,		137.00	
Quincy Tufts,		528.75	
Scholarship and Beneficiary money returned,		763.00	31,372.96
From Prize Funds and Gifts for Prizes.			
Jeremy Belknap (gift),		50.00	
Francis Boott. Expenses,		90.00	
Bowdoin Prizes for Dissertations.			
Prizes,	$1,100.00		
Expenses,	65.88	1,165.88	
Boylston Prizes for Elocution,		255.00	
Coolidge Debating,		200.00	
Lloyd McKim Garrison.			
Prize,	$100.00		
Expenses,	33.50	133.50	
Edward Hopkins Gift for "Deturs,"		178.42	
Sales,		45.00	
John O. Sargent,		200.00	
George B. Sohier (part, see p. 99),		250.00	
Robert N. Toppan,		150.00	
Philip Washburn,		75.00	
David A. Wells,		585.60	3,378.40
From Sundry Funds for Special Purposes.			
Francis James Child Memorial, books,		$420.05	
Classical Publication Fund of the **Class of 1856.**			
Harvard Studies in Classical Philol.,	$533.09		
Interest on advances,	69.79	602.88	
George A. Gardner, photographs, etc., for the Department of Geology,		246.43	
Amounts carried forward,		$1,269.36	$113,966.52

TABLE No. II, THE COLLEGE, CONTINUED.

PAYMENTS.

Amounts brought forward, ...		$1,269.36	$113,966.52
From Sundry Funds for Special Purposes (*continued*).			
Harvard Oriental Series, publications, ...		675.00	
Ingersoll Lecture (part), printing, ...		143.26	
Music Department, ...		66.47	
Francis Greenwood Peabody, services, .		250.00	
Nelson Robinson Jr. (part, see p. 89).			
Expenses of **Nelson Robinson Jr.** Hall, ...	$4,681.53		
Expenses in Department of Architecture, ...	974.25	5,655.78	
George William Sawin, books for Department of Mathematics, ...		35.20	
Barthold Schlesinger, books for Department of German, ...		19.15	
John E. Thayer, Quarterly Journal of Economics, ...		724.32	
Elizabeth Torrey, books for Department of History, ...		15.46	
Henry Warren Torrey, for printing **Harvard** Historical Studies, ...		535.76	
Unknown Memorial (part), services and expenses,		1,688.41	
Cyrus M. Warren, research in Chemistry, .		304.89	
Henry C. Warren (part), publications, . . .		6,253.44	17,636.50
From Gifts for Special Purposes.			
For Department of Architecture, books, casts, etc.,		$1,602.23	
" " Chemistry, books and improvements, ...		16.05	
" " The Classics, books, etc. . . .		798.36	
" " Education, books, ...		31.75	
" " Economics.			
Books and material,	$106.31		
Maps and charts, .	100.00	206.31	
" " French, books, ...		7.48	
" " Landscape Architecture, . . .		4.61	
" **Lowell** Memorial Library, books, ...		9.85	
" Semitic Library, books, ...		359.32	
" Bermuda Biological Station, ...		402.62	
" extra copies of contributions from the Zoölogical Laboratory, ...		50.00	
" School for Social Workers, . . .	$2,414.15		
Less charged to College salaries,	1,500.00	914.15	
" Social Questions Library, books, ...		239.86	
" The Ethics of the Social Questions.			
Sundry expenses, ...	$2,633.17		
Less charged to College salaries,	800.00	1,833.17	
Amounts carried forward, ...		$6,475.76	$131,603.02

TABLE NO. II, THE COLLEGE, CONTINUED.

PAYMENTS.

Amounts brought forward,		$6,475.76	$131,603.02
From Gifts for Special Purposes (*continued*).			
For Furnishings for the Department of Social Ethics, in Emerson Hall,		12,233.31	
" Furnishing Emerson Hall,		19,872.87	
" Equipment of the Psychological Laboratory,		2,341.55	
" Philosophical Library.			
Books,	$3,244.63		
Freight,	17.00	3,261.63	
" Research in Experimental Phonetics,		51.25	
" A painting,		1,000.00	
" Improvements at the Engineering Camp at Squam Lake, N.H.,		2,203.43	
" Committee on the Publication of Academic Distinctions (part, see p. 96),		40.00	47,479.80
Payments made from College income on the following accounts: —			
Museum of Comparative Zoölogy (part, see Table XIII, page 116),		$3,877.50	
Jefferson Physical Laboratory (part, see Table XVIII, page 120),		718.11	
Hemenway Gymnasium (part, see Table XXI, page 122),		6,306.40	10,902.01
Summer Schools.			
Salaries,		$17,864.53	
Secretary,		900.00	
Clerical services,		100.00	
Repairs and improvements,		4.49	
Care and cleaning,		168.65	
Fuel,		9.75	
Water,		41.30	
Lighting,		16.86	
Printing,		995.01	
Stationery and postage,		286.81	
Binding,		1.15	
Advertising,		686.19	
Services and wages,		478.75	
Remission of fees for instruction,		150.00	
Geological and Geographical courses, travelling expenses,		127.01	
Reception,		372.63	
Use of swimming tank,		300.00	
Gymnasium expenses,		151.16	
Instruments and appliances,		168.17	
Restaurant expenses, deficit,		1,893.97	
Supplies, materials, and sundries,		200.39	24,916.82
Amount carried forward,			$214,901.65

TABLE NO. II, THE COLLEGE, CONTINUED.

PAYMENTS.

Amount brought forward,		$214,901.65
Appropriations for collections, laboratories, etc.		
Anthropology,	$100.00	
Architecture,	500.00	
Landscape Architecture,	500.00	
Astronomy,	285.00	
Botany,	100.00	
Chemistry,	250.00	
Classics,	50.00	
Fine Arts,	100.00	
Geology and Geography,	125.00	
Mathematics,	77.63	
Mineralogy and Petrography,	350.00	
Mining 12,	400.00	
Music,	125.00	
Physics,	500.00	
Psychology,	150.00	
" for publications,	67.95	
Zoölogy,	200.00	
" for reprints,	50.00	
Laboratory fees appropriated,	28,436.46	
History, for books,	131.91	32,498.95
Salaries.		
Instruction,	$497,640.72	
Deans,	6,000.00	
Chairmen of Committees,	800.00	
Recorders and Secretaries,	6,700.00	
Examination Proctors,	1,384.00	512,524.72
For College Public Buildings, which are not valued in the Treasurer's books.		
Repairs, improvements, &c.,	$10,654.03	
Care and cleaning,	13,362.89	
Fuel,	6,621.07	
Water,	355.65	
Lighting,	1,724.60	
Insurance,	825.05	
Electric power,	411.21	
Supplies and sundries,	460.11	
Telephones,	70.25	
Furniture,	234.51	34,719.87
For College Dormitories, which are not valued in the Treasurer's books.		
Repairs and improvements,	$17,973.34	
Care and cleaning,	14,889.19	
Fuel,	2,455.39	
Water,	1,278.51	
Lighting,	3,625.18	
Insurance,	351.04	
Supplies and sundries,	333.99	40,906.64
Amount carried forward,		$835,551.38

TABLE No. II, THE COLLEGE, CONTINUED.

PAYMENTS.

Amount brought forward, ...			$835,551.33
General Expenses.			
Deans and Chairmen of Committees, clerical and office expenses, ...		$18,028.29	
Reading examination books, ...		3,143.49	
Services of proctors, ...		1,327.99	
" assistants to instructors, ...		4,473.25	
" undergraduates, ...		1,294.75	
" Head Guide in College grounds, . . .		262.50	
Attendants in department laboratories, ...		1,690.00	
Admission examinations, ...		3,125.01	
Commencement Lunch, ...		524.97	
Printing office, expenses, ...	$23,880.38		
Less receipts, ...	15,307.46	8,572.92	
Annals of Mathematics, ...		970.30	
Syllabus in Geometry, ...		37.10	
Syllabus in History 1*a*, ...		5.00	
Studies and Notes in Phil. & Lit., Vol. 10, . . .		150.00	
Reprints from Harvard Graduates' Magazine, .		35.00	
Map of Europe, ...		76.35	
Telephones, ...		16.88	
Advertising, ...		498.55	
Watchmen, ...		1,402.60	
Legal expenses, ...		76.40	
Music, Class-Day, ...		125.00	
Receptions, ...		63.00	
Use of Grays 18 by English Department, ...		100.00	
Landscape Architecture, services and supplies, . .		366.35	
Forestry, apparatus and supplies, ...		456.69	
Mineralogy, microscopes, ...		270.00	
Moving Psychological Laboratory, ...		75.00	
Services and expenses at Faculty meetings, . . .		84.26	
" for Regent, ...		7.60	
" for the Department of Forestry, ...		14.77	
Blank books for examinations, ...		522.50	
Expenses of camp at Squam Lake (Engineering),		13,889.54	
Engineering courses in Pierce Hall, ...		6,528.95	
Travelling expenses in Economics 18, ...		104.70	
" " in Forestry courses, ...		31.40	
Expenses of delegates, ...		18.45	
College Entrance Examination Board, ...		55.90	
Diplomas, ...		618.19	
Committee on the Publication of Academic Distinctions (part, see p. 94), ...		24.45	
Lighting College Yard, ...		182.50	
Rent and moving of pianos, ...		42.50	
Freight, and sundries, ...		154.10	69,447.20
			$904,998.53

Table No. III.

THE LIBRARY.

RECEIPTS.

Gifts for Capital Account.			
Book Fund of the **Class of 1881**,			$3,500.00
Income of Book Funds, and Gifts and Receipts for the purchase of books.			
Book Fund of the **Class of 1881**,		$109.59	
Nathaniel I. Bowditch,		100.16	
Bright Legacy (½ income, see p. 81),		1,185.00	
Edwin Conant (¼ income, see p. 98),		329.41	
Constantius (½ income, see p. 98),		615.42	
Denny,		252.36	
Eliza Farrar,		257.14	
Price Greenleaf (part, see pp. 82, 84, 98),		1,000.00	
Horace A. Haven,		156.80	
Francis B. Hayes,		481.44	
George Hayward,		250.27	
Thomas Hollis,		113.29	
Sidney Homer,		101.91	
Jarvis,		23.84	
Frederick A. Lane,		250.65	
Lowell,		1,275.01	
Charles Minot,		2,863.24	
Charles Eliot Norton,		404.56	
Lucy Osgood,		341.14	
Mary Osgood,		335.73	
Henry L. Pierce (part, see p. 98),		1,910.10	
Francis Sales,		185.38	
Stephen Salisbury,		253.97	
Sever,		955.20	
Samuel Shapleigh,		187.61	
George B. Sohier (part, see p. 85),		81.80	
Subscription,		500.02	
Charles Sumner,		1,786.22	
Kenneth Matheson Taylor,		244.54	
Daniel Treadwell (½ income, see p. 98),		288.29	
Ichabod Tucker,		213.18	
Henry W. Wales (part, see p. 80),		483.34	
James Walker,		759.92	
Thomas W. Ward,		243.45	
J. Huntington Wolcott,		952.12	
Gifts for books. Gifts,	$8,937.38		
Interest,	50.72	8,988.10	
Sale of duplicate books,		51.19	
Received for books lost,		40.67	
Fines,		404.22	28,976.28
Amount carried forward,			$32,476.28

TABLE NO. III, THE LIBRARY, CONTINUED.

RECEIPTS.

Amount brought forward, ...		$32,476.28
Income of **R. M. Hodges** Fund (part, see p. 82).		
For publishing bibliographical contributions, ...		364.18
Income of Funds for general purposes.		
Daniel Austin, ...	$326.44	
Class of 1880 (part, see pp. 79, 113), ...	1,000.00	
Edwin Conant (¾ income, see p. 97), ...	988.22	
Constantius (½ income, see p. 97), ...	615.42	
Fund of the **Class of 1851**, ...	31.90	
" " " " (**C. F. Dunbar's** Gift),	31.43	
Price Greenleaf (part, see pp. 82, 84, 97), . .	15,370.77	
Henry T. Morgan, ...	3,884.48	
Henry L. Pierce (part, see p. 97), ...	500.00	
Henry L. Pierce (Residuary) (part, see pp. 75, 115),	2,370.00	
James Savage (part, see pp. 83, 114), ...	1,268.10	
Daniel Treadwell (½ income, see p. 97), . . .	288.28	
Eben Wright, ...	4,740.00	31,415.04
Fees for use of Library, ...	$95.00	
Sale of Index Subject Catalogues, ...	.68	
" Bibliographical Contributions, ...	4.37	
" Memorial Biographies, ...	9.00	
Gifts for services, ...	2,776.69	2,885.74
		$67,141.24

PAYMENTS.

For Books, from the following Funds, Gifts, etc.	
Book Fund of the **Class of 1881**, ...	$129.84
Bowditch, ...	61.32
Bright, ...	1,116.38
Edwin Conant, ...	436.94
Constantius, ...	679.96
Denny, ...	206.49
Farrar, ...	286.55
Price Greenleaf (part, see pp. 90, 92), ...	965.57
Haven, ...	218.87
Hayes, ...	481.14
Hayward, ...	232.94
Hollis, ...	69.08
Homer, ...	124.47
Lane, ...	107.85
Lowell, ...	901.34
Minot, ...	2,972.87
Charles Eliot Norton, ...	251.86
Lucy Osgood, ...	299.61
Mary Osgood, ...	391.26
Amount carried forward, ...	$9,934.34

TABLE NO. III, THE LIBRARY, CONTINUED.

PAYMENTS.

Amount brought forward,		$9,934.34	
For Books, from the following Funds, Gifts, etc. (*contin'd*).			
Henry L. Pierce,		2,538.90	
Sales,		177.76	
Salisbury,		330.66	
Sever,		1,262.45	
Shapleigh,		134.14	
George B. Sohier (part, see p. 92),		25.50	
Subscription,		438.76	
Sumner,		1,937.39	
Kenneth Matheson Taylor,		340.03	
Daniel Treadwell,		210.43	
Tucker,		472.90	
Wales,		180.81	
Walker,		826.11	
Ward,		118.54	
J. Huntington Wolcott,		525.56	
Sundry gifts for books (balances),		7,811.49	
Duplicate money and receipts for lost books,		136.60	
Fines,		71.27	$27,478.64
From **R. M. Hodges** Fund (part, see p. 90).			
For publishing bibliographical contributions,			1,735.00
Salaries,		$17,675.00	
Services and wages (part, see below),		18,007.86	
Services paid from special gifts (part, see below).			
Including the services of a purchasing agent abroad,		2,281.39	
Repairs and improvements,		662.50	
Care and cleaning,		1,229.96	
Fuel,		1,052.42	
Water,		12.24	
Lighting,		1,036.44	
Printing,		731.86	
Furniture,		406.40	
Stationery and postage,		653.67	
Telephone,		97.85	
Binding,		2,551.26	
Electric power,		35.42	
Freight,		425.28	
Supplies and sundries,		1,028.85	
Maps,		16.50	
Moving books,		87.00	47,991.90
Department Libraries.			
Services and wages.			
Paid from special gifts,	$84.00		
Remainder,	1,151.16	$1,235.16	
Lighting paid from special gift,		12.00	1,247.16
			$78,447.70

Table No. IV.

DIVINITY SCHOOL.

RECEIPTS.

Gift for Capital Account.			
Daniel Austin Fund (additional),			$225.26
Income of Funds for Instruction, or for general purposes.			
Divinity School (balance),		$525.52	
Endowment,		3,385.64	
Oliver Ames,		805.80	
Hannah C. Andrews,		24.89	
Daniel Austin,		46.64	
Adams Ayer,		47.40	
Joseph Baker,		724.04	
Beneficiary money returned (balance),		9.05	
Bussey Professorship,		1,781.48	
Bussey Trust (part, see pp. 102, 110, 124),		3,256.16	
Joshua Clapp,		103.24	
Edwin Conant,		237.00	
Dexter Lectureship,		1,210.79	
Frothingham Professorship,		2,545.52	
Abraham W. Fuller,		49.77	
Lewis Gould,		48.18	
John Hancock Professorship,	$284.78		
Charles L. Hancock (part, see p. 124),	4,363.35	4,648.13	
Haven,		237.00	
Samuel Hoar,		49.77	
Henry P. Kidder,		474.00	
Henry Lienow,		435.37	
Caroline Merriam,		49.77	
Parkman Professorship,		759.16	
John W. Quinby,		26.35	
Abby Crocker Richmond,		47.40	
John L. Russell,		47.40	
William B. Spooner,		474.00	
Thomas Tileston of New York Endowment,		1,896.00	
Mary P. Townsend,		248.85	
Winthrop Ward,		99.54	
Winn Professorship,		2,647.10	26,935.96
Interest on account of tuition fees paid in advance,			28.20
Income of Scholarship, Beneficiary and Prize Funds.			
Robert Charles Billings, for prizes,		$120.06	
Abner W. Buttrick,		630.66	
Thomas Cary,		270.04	
George Chapman,		132.48	
Joshua Clapp,		214.72	
Amounts carried forward,		$1,367.96	$27,189.42

TABLE NO. IV, DIVINITY SCHOOL, CONTINUED.

RECEIPTS.

Amounts brought forward, . . .		$1,367.96	$27,189.42
Income of Scholarship, etc. (*continued*).			
Jackson Foundation,		714.56	
J. Henry Kendall,		261.98	
Nancy Kendall,		166.28	
William Pomroy,		49.77	2,560.55
Income of Book Funds.			
Rushton Dashwood Burr,		$211.02	
Louisa J. Hall,		38.92	249.94
Receipts from Students.			
Tuition fees, regular courses,		$5,385.00	
" " Summer School,		1,020.00	
Divinity Hall,		2,872.30	
Library fines,		7.60	9,284.90
Gift from Society for Promoting Theological Education,		$1,501.40	
Sale of tickets to Alumni Dinner,		52.00	
" Catalogues,		2.75	
" duplicate books,		3.00	1,559.15
			$40,843.96

PAYMENTS.

From Scholarship Funds.			
Thomas Cary,		$240.00	
George Chapman,		100.00	
Joshua Clapp,		180.00	
Jackson Foundation,		640.00	
J. Henry Kendall,		200.00	
Nancy Kendall,		140.00	$1,500.00
From Beneficiary Funds.			
Abner W. Buttrick,		$575.00	
William Pomroy,		51.66	626.66
From **Robert Charles Billings** Fund, prize,			100.00
From Book Funds.			
Rushton Dashwood Burr,		$89.82	
Louisa J. Hall,		2.35	92.17
Salaries for instruction,		$31,713.85	
Summer School. Salaries for instruction, .	$1,125.00		
Printing and other expenses,	209.10	1,334.10	
Secretary and Librarian,		1,750.00	
Services and wages,		251.28	
Library Assistants,		1,201.42	
Repairs, improvements, and labor,		591.64	
Insurance,		102.79	
Care and cleaning,		1,827.15	
Amounts carried forward, ...		$38,772.23	$2,318.83

TABLE NO. IV, DIVINITY SCHOOL, CONTINUED.

PAYMENTS.

Amounts brought forward,	$38,772.23	$2,318.83
Fuel,	592.61	
Water,	105.56	
Lighting,	279.22	
Printing,	134.25	
Furniture,	108.38	
Stationery and postage,	82.59	
Telephone,	20.58	
Books,	556.06	
Binding,	83.45	
Advertising,	403.15	
Diplomas,	1.75	
Alumni dinner,	65.00	
Proportion of expenses of Gymnasium (see Table XXI, page 122),	82.86	
Tuning and repairing organ,	13.73	
American School for oriental study and research in Palestine (sixth payment),	100.00	
Subscriptions to the Fellowship in Christian Archaeology in the American School of Classical Studies in Rome,	25.00	
Sundries,	67.23	41,493.65
		$43,812.48

TABLE NO. V.

LAW SCHOOL.

RECEIPTS.

Gifts for Capital Account.			
James C. Carter Professorship Fund,		$100,000.00	
James Coolidge Carter Loan Fund,		12,000.00	
George Fisher Scholarship Fund,		3,500.00	
Hughes Loan Fund (additional),		750.00	$116,250.00
Income of Funds and Gifts.			
Law School, balance,		$15,196.15	
James Barr Ames Loan,		24.79	
James Barr Ames Prize,		251.60	
Gift of **James Munson Barnard** and **Augusta Barnard.** Gift,	$2,000.00		
Interest,	21.82	2,021.81	
Bemis Professorship,		3,539.03	
Bussey Professorship,		1,136.65	
Bussey Trust (part, see pp. 100, 110, 124),		3,256.16	
James C. Carter Professorship,		2,764.98	
James Coolidge Carter Loan,		47.40	
Amounts carried forward,		$28,238.57	$116,250.00

Table No. V, Law School, continued.

RECEIPTS.

Amounts brought forward,		$28,238.57	$116,250.00
Income of Funds and Gifts (*continued*).			
Dane Professorship,		746.55	
George Fisher Scholarship. Interest,	$13.84		
Gift,	51.00	64.84	
Hughes Loan. Interest,	$6.12		
Repayments,	87.50	93.62	
Law School Book,		2,228.80	
Law School Library,		4,740.00	
Royall Professorship,		395.36	
Weld "		4,502.76	
Scholarship Money Returned. Interest,	$51.52		
Repayment,	29.00	80.52	41,091.02
Interest on account of tuition fees paid in advance,			560.91
Tuition fees,			107,090.00
Sale of books,			119.81
Unredeemed locker deposits,			89.00
			$265.200.24

PAYMENTS.

(See also Construction Accounts, Table XXIV, p. 121.)

From Beneficiary and Loan Funds.		
Hughes Loan,	$153.67	
Scholarship Money Returned,	671.33	$825.00
Scholarships from unrestricted income,	$6,750.00	
Salaries for instruction,	55,383.33	
Librarians and Assistants,	10,072.26	
Secretary,	1,000.00	
Services of examiners and proctors,	400.50	
Repairs and improvements,	313.98	
Care and cleaning,	1,578.11	
Fuel,	697.24	
Water,	68.45	
Lighting,	1,380.70	
Printing,	366.94	
Furniture,	379.83	
Stationery and postage,	594.62	
Telephone,	77.71	
Books,	13,738.75	
Binding,	2,324.53	
Cleaning and moving books,	202.00	
Advertising,	150.00	
Insurance,	183.73	
Amounts carried forward,	$95,662.68	$825.00

TABLE NO. V, LAW SCHOOL, CONTINUED.

PAYMENTS.

Amounts brought forward,	$95,662.68	$825.00
Freight,	563.32	
Proportion of expenses of Gymnasium (see Table XXI, page 122),	1,605.71	
Travelling expenses,	34.79	
Electric power,	112.84	
Catalogue,	269.64	
Diplomas,	83.52	
Sundries,	364.12	98,696.62
		$99,521.62

TABLE NO. VI.

MEDICAL SCHOOL.

RECEIPTS.

(See also CONSTRUCTION ACCOUNTS, Table XXIV, page 125.)

Gifts for Capital Account.		
Anonymous Fund in the Department of Theory and Practice,	$10,000.00	
Bullard Professorship of Neuropathology Fund,	50,000.00	
George Fabyan Foundation for Comparative Pathology (additional),	75,000.00	$135,000.00
Income of Funds for Instruction, or for general purposes.		
Medical School, balance,	$263.59	
Anonymous Fund in the Department of Theory and Practice,	59.25	
Edward M. Barringer (part, see p. 105),	659.32	
Robert C. Billings,	5,435.78	
John B. and **Buckminster Brown,**	1,038.06	
Bullard Professorship of Neuro-Pathology,	888.75	
Calvin and **Lucy Ellis** (part, see p. 124),	16,900.08	
George Fabyan Foundation for Comparative Pathology (part, see p. 106),	5,512.45	
Samuel E. Fitz,	87.03	
Henry Harris (½ income, see p. 75),	709.56	
Hersey Professorship (⅖ income, see p. 79),	383.32	
George Higginson,	4,854.80	
Henry Jackson Endowment,	4,440.76	
Jackson Professorship of Clinical Medicine,	3,279.75	
Amounts carried forward,	$44,512.50	$135,000.00

TABLE NO. VI, MEDICAL SCHOOL, CONTINUED.

RECEIPTS.

Amounts brought forward, ...	$44,512.50	$135,000.00
Income of Instruction Funds (*continued*).		
William O. Moseley, ...	2,513.53	
New subscription, ...	1,836.75	
Henry L. Pierce (Residuary), ...	19,319.05	
Dr Ruppaner, ...	442.53	
George C. Shattuck, ...	3,539.03	
James Stillman Professorship, ...	5,444.13	
Mary W Swett, ...	747.27	
Samuel W. Swett, ...	948.00	
Quincy Tufts, ...	94.80	
Henry Willard Williams, ...	1,771.95	81,169.54
Interest on account of tuition fees paid in advance, ...		253.15
Income of Fellowship Funds.		
Edward Austin (part, see pp. 81^2, 84, 109).		
Austin Teaching Fellowships, ...	$2,000.00	
George Cheyne Shattuck Memorial, ...	256.67	
Charles Eliot Ware "	277.29	
John Ware "	254.40	2,788.36
Income of Scholarship and Aid Funds.		
Anonymous Aid	$243.30	
Edward M. Barringer (part, see p. 104), . .	550.00	
Lucius F Billings, ...	246.67	
David Williams Cheever, ...	275.63	
Cotting Gift, ...	151.21	
Orlando W. Doe, ...	135.52	
Joseph Eveleth (part, see p. 82), ...	600.00	
John Foster for Medical students and for Law students in alternate years, ...	150.31	
Lewis and **Harriet Hayden**, ...	272.50	
William Hilton (part, see p. 82), ...	450.00	
Claudius M. Jones, ...	307.67	
Alfred Hosmer Linder, ...	262.22	
Joseph Pearson Oliver, ...	411.53	
Charles B. Porter	274.54	
Charles Pratt Strong, ...	231.69	
Isaac Sweetser	309.10	
John Thomson Taylor, ...	254.16	
Edward Wigglesworth, ...	259.56	5,385.61
Income of Prize Funds.		
Ward Nicholas Boylston, ...	$179.98	
William H. Thorndike, ...	354.93	534.91
Amount carried forward, ...		$225,131.57

TABLE NO. VI, MEDICAL SCHOOL, CONTINUED.

RECEIPTS.

Amount brought forward,			$225,131.57
Income of Sundry Funds and Gifts for special purposes.			
Edward Austin (Bacteriological Laboratory),		$536.81	
J. Ingersoll Bowditch,		296.91	
Boylston, for Medical Books,		89.63	
Caroline Brewer Croft (part, see p. 124),		2,169.13	
George Fabyan Foundation for Comparative Pathology (part, see p. 104),		788.76	
F. B. Greenough (surgical research),		169.41	
Medical Library,		91.67	
Proctor, for the study of Chronic Diseases,		2,626.15	
School of Comparative Medicine,		241.74	
Surgical Laboratory,		339.76	
Warren Fund for Anatomical Museum,		668.10	
Gifts for present use,		85.38	8,103.45
Sale of land.			
Options,		$1,000.00	
Interest,		5.12	1,005.12
Gifts for present use,			8,865.00
For heat and power supplied to the House of the Good Samaritan,			2,020.35
Advertising,			375.00
Receipts from students.			
Tuition fees, regular courses,	$48,830.75		
" " graduate courses,	2,713.00		
" " Dental students,	2,400.00		
" " summer courses,	9,897.00		
" " Physiology, special course,	25.00	$63,865.75	
Graduation fees,		2,280.00	
Matriculation fees,		375.00	
Examination fees,		258.00	
Laboratory fees and supplies.			
Anatomy,	$792.00		
Chemistry,	863.35		
Embryology,	205.10		
Histology,	158.00		
Operative Surgery,	189.00		
Physiology,	311.05	2,518.50	
Use of microscopes,		283.00	69,080.25
			$314,580.74

TABLE NO. VI, MEDICAL SCHOOL, CONTINUED.

PAYMENTS.

(See also CONSTRUCTION ACCOUNTS, Table XXIV, page 126.)

From Fellowship Funds.			
Edward Austin (part, see pp. 89^2, 91, 109).			
Austin Teaching Fellowship,		$2,000.00	
George Cheyne Shattuck Memorial,		225.00	
Charles Eliot Ware Memorial,		315.00	
John Ware Memorial,		225.00	$2,765.00
From Scholarship and Aid Funds.			
Anonymous Aid,		$200.00	
Edward M. Barringer (part),		550.00	
Lucius F. Billings,		200.00	
David Williams Cheever,		250.00	
Cotting Gift,		125.00	
Orlando W. Doe,		60.00	
Joseph Eveleth (part, see p. 90),		600.00	
Lewis and **Harriet Hayden,**		309.52	
William Hilton (part),		450.00	
Claudius M. Jones,		250.00	
Alfred Hosmer Linder,		280.00	
Joseph Pearson Oliver,		325.00	
Charles B. Porter,		305.00	
Charles Pratt Strong,		100.00	
Isaac Sweetser,		250.00	
John Thomson Taylor,		200.00	
Edward Wigglesworth,		200.00	4,654.52
From Prize Fund.			
Boylston, advertising,			12.50
From Sundry Funds and Gifts for special purposes.			
Edward Austin (Bacteriological Laboratory),		$288.06	
Robert C. Billings, Journal of Medical Research,		600.00	
J. Ingersoll Bowditch, Physiology,		318.57	
Boylston, Medical Books,		503.26	
Caroline Brewer Croft (part), cancer investigations,		581.30	
George Fabyan Foundation for Comparative Pathology (part), services,		788.76	
Gifts for Anatomical Research,		192.23	
Gifts for Pathological Department Library,		445.77	
Proctor, for the study of Chronic Diseases,		1,785.25	
Surgical Laboratory,		718.34	
Warren Fund for Anatomical Museum,		1,112.31	
Sundry Gifts (balances),	$7,419.34		
Less paid for salaries,	3,700 00	3,719.34	11,053.19
Real Estate. Expenses,		$2,370.86	
Less receipts,		2,264.17	106.69
Amount carried forward,			$18,591.90

TABLE NO. VI, MEDICAL SCHOOL, CONTINUED.

PAYMENTS.

Amount brought forward,		$18,591.90
Appropriations.		
Anatomy,	$1,900.00	
Bacteriology,	500.00	
Chemistry,	2,093.46	
Histology and Embryology,	2,055.10	
Hygiene,	300.00	
Museum,	200.00	
Obstetrics,	100.00	
Pathology,	800.00	
Pharmacology and Therapeutics,	700.00	
Physiology,	3,464.39	
Surgery,	450.00	
Theory and Practice,	150.00	12,712.95
Graduate courses, fees repaid to Instructors,	$2,663.00	
Summer " " " "	6,497.00	9,160.00
Salaries for instruction,		83,041.67
Retiring allowance,		1,000.00
General Expenses.		
Dean, Secretary, and Curator,	$2,500.00	
Clerical services,	1,743.00	
Repairs and improvements,	116.46	
Care and cleaning,	5,074.12	
Fuel,	1,988.04	
Water,	1,159.20	
Lighting and gas,	2,711.18	
Printing,	732.61	
Furniture,	29.46	
Stationery and postage,	245.45	
Telephone,	153.11	
Advertising and catalogues,	1,195.00	
Insurance,	963.50	
Proctors,	53.00	
Mechanics and laboratory attendants,	6,933.47	
Electric power,	1,043.10	
Diplomas,	39.35	
Time service,	25.00	
American Medical Association meetings,	92.12	
Removing brown-tail moths,	51.50	
Supplies and material,	869.19	
Sundries,	435.91	28,153.77
		$152,660.29

Table No. VII.

DENTAL SCHOOL.

RECEIPTS.

Income of Funds and Gifts.			
Edward Austin (part, see pp. 81^2, 84, 105).			
Austin Teaching Fellowship,		$500.00	
Dental School, balance,		537.85	
Dental School Endowment,		107.41	
Henry C. Warren Endowment,		1,090.20	
Gifts for building.			
Harvard Dental Alumni Gifts,	$1,614.31		
Other Gifts,	3,500.00		
Interest,	515.81	5,630.12	$7,865.58
Interest on tuition fees paid in advance,			67.62
Receipts from students.			
Tuition fees, regular courses,	$12,910.00		
" " special "	25.00		
" " summer "	450.00		
	$13,385.00		
Less transferred to Medical School,	2,400.00	$10,985.00	
Examination fees,		334.00	
Laboratory fees,		4,336.37	
Use of microscopes,		10.00	
Chemistry, breakage and supplies,		166.07	15,831.44
Fees from infirmary,			6,105.10
Sale of gold, platinum and sweepings,		$601.35	
" scraps and old materials,		81.35	
" pamphlets and catalogues,		9.00	691.70
Receipts from real estate.			749.83
			$31,311.27

PAYMENTS.

Summer courses, fees repaid to Instructors,		$225.00
Edward Austin (part, see pp. 89^2, 91, 107).		
Austin Teaching Fellowship,		500.00
Real Estate.		
Taxes,	$87.58	
Expenses,	310.76	398.34
Salaries for instruction,	$8,550.00	
Curator and Librarian,	100.00	
Secretary,	400.00	
Proctors,	37.00	
Repairs and improvements,	585.99	
Care and cleaning,	1,277.37	
Amounts carried forward,	$10,950.36	$1,123.34

TABLE NO. VII, DENTAL SCHOOL, CONTINUED.

PAYMENTS.

Amounts brought forward,	$10,950.36	$1,123.34
Fuel,	614.22	
Water,	96.10	
Lighting,	556.41	
Printing,	322.44	
Furniture,	26.80	
Instruments and apparatus,	334.00	
Stationery and postage,	340.91	
Telephone,	102.85	
Books,	2.50	
Advertising,	645.66	
Services and wages,	1,611.11	
Diplomas,	34.81	
Annual Catalogue,	94.95	
Quinquennial Catalogue,	356.05	
Expenses in preparing for a new building,	90.65	
Supplies, &c.,	5,712.27	
Sundries,	702.85	22,594.94
		$23,718.28

TABLE NO. VIII.

BUSSEY INSTITUTION.

RECEIPTS.

Income of Funds.		
Bussey Institution. Interest on balance,	$1,286.62	
Bussey Trust (part, see pp. 100, 102, 124),	6,512.32	$7,798.94
Tuition fees,		3,570.00
Interest on tuition fees paid in advance,		16.34
Sale of wood, hay and sundries,	$64.86	
" horse,	110.00	
Horticultural Departm't, prizes, sale of flowers, plants, &c.,	1,911.05	
Board of animals,	4,724.49	
Use of houses by College officers,	723.87	
For book lost,	1.00	7,535.27
		$18,920.55

PAYMENTS.

Salaries,	$8,200.00
Services and wages,	3,125.33
Repairs and improvements,	1,250.46
Fuel,	391.50
Lighting,	21.98
Water,	36.80
Printing,	3.60
Stationery and postage,	17.66
Amount carried forward,	$13,047.33

TABLE NO. VIII, BUSSEY INSTITUTION, CONTINUED.

PAYMENTS.

Amount brought forward,	$13,047.33	
Books,	98.13	
Catalogue,	10.80	
Binding,	31.10	
Advertising,	43.35	
Horticultural Department, expenses,	1,877.48	
Grain, farming tools, &c.,	2,076.45	
Diplomas,	1.00	
Legal expenses,	15.00	
Sundries,	37.26	$17,237.90

TABLE NO. IX.

ARNOLD ARBORETUM.

RECEIPTS.

Gifts for capital account.		
Arnold Arboretum Fund (additional),	$885.00	
Francis Skinner Fund,	20,000.00	$20,885.00
Income of Funds and of Gifts.		
Arboretum Construction Gifts. Interest on balance,	$613.57	
Arnold Arboretum,	5,936.14	
James Arnold,	7,607.08	
Robert Charles Billings (part),	652.90	
William L. Bradley,	1,103.90	
Francis Skinner,	474.00	
Bussey, for the **Arnold** Arboretum,	109.40	
Gift for books,	24.24	16,521.23
Gifts for present use,	$1,375.00	
" real estate and construction,	5,900.00	
Use of barn,	165.00	
Sale of grass and materials,	2,512.95	9,952.95
		$47,359.18

PAYMENTS.

From **William L. Bradley** Fund, bibliography,		$1,400.00
Books from gifts,		3,280.18
Salaries of Director and Assistant,	$3,500.00	
Repairs and improvements,	3,969.96	
Labor,	7,904.47	
Fuel,	348.56	
Water,	57.00	
Furniture,	52.40	
Stationery and postage,	136.60	
Printing,	11.10	
Amounts carried forward,	$15,980.09	$4,680.18

TABLE No. IX, ARNOLD ARBORETUM, CONTINUED.

PAYMENTS.

Amounts brought forward,	$15,980.09	$4,680.18
Services and wages,	6,601.22	
Supplies, tools, and materials,	881.80	
Taxes,	332.30	
Freight,	296.95	
Expenses of expeditions for collecting,	390.25	
Sundries,	3.74	24,486.35
		$29,166.53

TABLE No. X.

BOTANIC GARDEN AND BOTANIC MUSEUM.

RECEIPTS.

Income of Funds.			
Botanic Department (⅝ income, see p. 85),		$1,178.48	
Lowell, for a Botanic Garden,		3,147.69	
John L. Russell (½ income, see p. 113),		23.70	$4,349.87
Gifts.			
Gift for cases. Interest,		23.91	
Gift for sugar cane investigations.			
Additional Gift,	$1,000.00		
Interest,	22.70	1,022.70	
Other gifts for immediate use,		4,200.00	5,246.61
Use of house,			700.00
			$10,296.48

PAYMENTS.

From gift for cases,		$213.84
" for sugar-cane investigations,		353.96
Services and wages,	$437.00	
Labor,	5,057.19	
Care and cleaning,	11.50	
Repairs and improvements,	1,381.07	
Fuel,	778.31	
Water,	153.33	
Furniture,	170.00	
Stationery and postage,	7.30	
Telephone,	47.80	
Printing,	13.00	
Taxes,	171.00	
Electric power,	.95	
Interest on advances,	404.41	
Supplies and sundries,	819.68	9,452.54
Expedition to the West Indies,		700.00
		$10,720.34

Table No. XI.

GRAY HERBARIUM.

RECEIPTS.

Income of Funds.		
Gray Herbarium (balance), ...	$41.81	
Robert Charles Billings, ...	711.00	
Asa Gray Memorial, ...	1,545.76	
Herbarium, ...	979.09	
John L. Russell (¼ income, see p. 112), . . .	71.10	$3,348.76
Asa Gray's copyrights, ...		776.79
Gifts for immediate use, ...		5,380.00
Sale of publications, ...	$45.84	
" contributions, ...	2.60	
" card index, ...	2,616.86	
" check lists, ...	.18	
Commission on sale of Sullivant's Icones, ...	6.48	2,671.96
		$12,177.51

PAYMENTS.

Salaries, ...	$4,308.33	
Services and wages, ...	2,438.13	
Care and cleaning, ...	199.42	
Repairs and improvements, ...	50.87	
Furniture, ...	1,065.00	
Stationery and postage, ...	83.97	
Telephone, ...	8.90	
Printing, ...	518.79	
Books, ...	1,020.80	
Binding, ...	128.00	
Advertising, ...	4.00	
Insurance, ...	22.50	
Supplies and sundries, ...	1,481.49	$11,325.20

Table No. XII.

OBSERVATORY.

RECEIPTS.

Income of Funds and Gift.		
Advancement of Astronomical Science (1902).		
Interest (part, see p. 124), ...	$648.66	
Sales, ...	224.06	$872.72
Thomas G. Appleton, ...		237.00
J. Ingersoll Bowditch, ...		118 50
Uriah A. Boyden, ...		9,326.23
Class of 1880 (part, see pp. 79, 98), ...		500.00
Charlotte Harris, ...		94.80
Amount carried forward, ...		$11,149.25

TABLE NO. XII, OBSERVATORY, CONTINUED.

RECEIPTS.

Amount brought forward,	$11,149.25	
Income of Funds and Gifts (*continued*).		
Haven,	2,133.00	
James Hayward,	995.40	
Observatory Endowment,	2,370.00	
Paine Professorship,	2,370.00	
Robert Treat Paine,	12,984.37	
Edward B. Phillips,	5,227.94	
Josiah Quincy,	669.52	
James Savage (½ net income, see pp. 83, 98),	422.70	
David Sears,	1,858.51	
Augustus Story,	634.21	$40,814.90
Mrs. Henry Draper, gift for special research (additional),	$10,000.00	
Interest,	25.98	10,025.98
Gift for present use,		5,500.00
Use of house by College officer,	$600.00	
Sale of Annals,	35.13	
" photographs,	2.00	
" photometers,	144.96	
" slides,	28.00	
" grass,	25.00	835.09
		$57,175.97

PAYMENTS.

From Anonymous Gift (1902),		$875.13
" Advancement of Astronomical Science Fund (1902) (part, see p. 125),	$2,275.80	
Less amount included in general expenses,	2,100.77	175.03
" **Uriah A. Boyden** Fund, supplies, apparatus, services, &c.,		11,817.98
" **Draper** Memorial, supplies, apparatus, services, &c.,	$8,301.02	
Less amount included in salaries,	2,500.00	5,801.02
Salaries,	$17,100.00	
Services and wages,	7,156.11	
Repairs and improvements,	3,422.24	
Sidewalks,	381.18	
Care and cleaning,	598.25	
Labor,	1,594.00	
Fuel,	807.15	
Water,	76.71	
Lighting,	238.56	
Printing,	1,341.82	
Furniture,	644.99	
Instruments and apparatus,	1,753.59	
Amounts carried forward,	$35,114.60	$18,669.16

TABLE NO. XII, OBSERVATORY, CONTINUED.

PAYMENTS.

Amounts brought-forward,	$35,114.60	$18,669.16
Stationery, postage and telegraphing,	1,113.39	
Telephone,	85.23	
Books,	392.87	
Binding,	432.68	
Insurance,	65.94	
Freight,	288.23	
Use of house,	90.00	
Electric power,	66.62	
Interest on advances,	273.33	
Supplies and materials,	2,016.35	
Sundries,	13.85	39,953.04
		$58,622.20

TABLE NO. XIII.

MUSEUM OF COMPARATIVE ZOÖLOGY.

RECEIPTS.

Income of Funds.		
Museum of Comparative Zoölogy (balance),	$1,531.30	
Agassiz Memorial,	14,122.02	
Teachers and Pupils,	359.96	
Virginia Barret Gibbs Scholarship,	263.31	
Gray Fund for Zoölogical Museum,	2,370.00	
Sturgis Hooper,	5,109.39	
Humboldt,	366.92	
Willard Peele Hunnewell,	237.00	
Permanent Fund for Museum of Zoölogy,	5,568.03	
Henry L. Pierce (Residuary), (part, see pp. 75, 98),	4,740.00	$34,667.93
Gift for present use,		5,000.00
Use of lecture rooms by Radcliffe College,	$700.00	
Sales of publications,	580.62	1,280.62
		$40,948.55

PAYMENTS.

From **Sturgis Hooper** Fund.		
Salary of **Sturgis Hooper** Professor,	$5,500.00	
Expenses,	395.45	$5,895.45
From **Virginia Barret Gibbs** Scholarship Fund, scholarship,		250.00
Salaries,	$10,475.00	
Services and wages,	3,395.00	
Repairs and improvements,	1,047.84	
Care and cleaning,	3,607.42	
Amounts carried forward,	$18,525.26	$6,145.45

TABLE NO. XIII, MUSEUM OF COMPARATIVE ZOÖLOGY, CONTINUED.

PAYMENTS.

Amounts brought forward,		$18,525.26	$6,145.45
Fuel,		3,247.33	
Water,		56.35	
Gas,		16.98	
Printing,		2,972.38	
Cases,		2,697.19	
Furniture,		318.23	
Instruments and apparatus,		151.96	
Stationery and postage,		233.25	
Telephone,		38.39	
Books,		1,824.52	
Binding,		1,015.50	
Watchmen,		686.00	
Collections.		2,312.41	
Freight,		468.48	
Supplies and sundries,		1,480.92	
		$36,045.15	
Less the following items which were paid from College income (see Table II, page 94) :—			
Heating and service,	$3,037.50		
Librarian's salary (part),	250.00		
Watchman (part),	240.00		
Publishing contributions from the Laboratories of Geography and Zoölogy,	350.00	3,877.50	32,167.65
			$38,313.10

TABLE NO. XIV.

PEABODY MUSEUM OF AMERICAN ARCHAEOLOGY AND ETHNOLOGY.

RECEIPTS.

Income of Funds.		
Hemenway Fellowship,	$579.65	
Peabody Building,	1,420.68	
Peabody Collection,	2,371.54	
Peabody Professor,	2,371.54	
Thaw Fellowship,	1,155.99	
Henry C. Warren Exploration,	492.53	
Susan Cornelia Warren,	237.00	
Robert C. Winthrop Scholarship,	276.34	
Huntington Frothingham Wolcott,	986.06	$9,891.33
Use of heating plant,		75.00
Gifts.		
For South American expedition,	$416.66	
For other present uses,	625.00	1,041.66
Total of receipts, carried forward,		$11,007.99

TABLE NO. XIV, PEABODY MUSEUM, CONTINUED.

Total of receipts, brought forward, ...		$11,007.99

PAYMENTS.

From **Henry C. Warren** Fund, explorations, ...		$470.50
" **Huntington Frothingham Wolcott** Fund, specimens,		1,063.19
Hemenway Fellowship, ...		300.00
Thaw Fellowship, ...		1,173,19
Robert C. Winthrop Scholarship, ...		305.00
Salary of Professor and Curator, ...	$2,422.15	
Services and wages, ...	2,456.87	
Repairs and improvements, ...	34.36	
*Care and cleaning, ...	1,045.35	
*Fuel, ...	192.70	
Water, ...	25.00	
*Lighting, ...	10.27	
Printing, ...	43.65	
Furniture, ...	148.66	
Stationery and postage, ...	136.14	
Insurance, ...	75.00	
Telephone, ...	31.21	
Books, ...	65.19	
Binding, ...	27.15	
Collections and expenses, ...	354.98	
Explorations, ...	840.58	
Freight, ...	294.36	
Supplies, ...	187.97	
Sundries, ...	55.70	
Interest on advances, ...	89.15	
	$8,536.44	
Less the items marked *, which were paid from University income (see Table I, page 77), ...	1,248.32	7,288.12
		$10,600.00

TABLE NO. XV.

SEMITIC MUSEUM.

RECEIPTS.

Gifts for Semitic Collection.		
Gifts, ...	$11,608.56	
Interest, ...	199.78	$11,808.34
Gift for excavations in Palestine. Interest, ...		75.69
		$11,884.03

PAYMENTS.

From gift for excavations in Palestine, ...	$1,500.00	
From gifts for Semitic Collection, ...	6,781.62	$8,281.62
Amount carried forward, ...		$8,281.62

TABLE NO. XV, SEMITIC MUSEUM, CONTINUED.

PAYMENTS.

Amount brought forward,		$8,281.62
General expenses.		
Curator,	$500.00	
Repairs and improvements,	13.05	
Services and wages,	3.03	
Care and cleaning,	634.50	
Fuel,	240.53	
Water,	34.20	
Lighting,	4.67	
Furniture,	104.74	
Printing,	57.00	
Electric power,	43.81	
Stationery and postage,	21.53	
Supplies and sundries,	46.76	
Use of Peabody Museum heating plant,	75.00	
These general expenses were paid from University income (see Table I, page 77),	$1,778.82	
		$8,281.62

TABLE NO. XVI.

GERMANIC MUSEUM.

RECEIPTS.

Gifts for Capital Account.			
Emperor William Fund,			$19,315.00
Income of Funds and Gifts.			
Emperor William,		$318.24	
Gift for opening the Museum on Sunday and Thursday afternoons,		200.00	
Unrestricted gift. Gift,	$500.00		
Interest,	5.15	505.15	1,023.39
			$20,338.39

PAYMENTS.

General expenses.		
Repairs and improvements,	$25.85	
Care and cleaning,	357.58	
Fuel,	109.78	
Water,	5.00	
Lighting,	52.53	
Insurance,	9.80	
Electric power,	46.82	
Sunday and Thursday opening of Museum,	242.00	
Supplies and sundries,	1.60	
	$850.96	
Less the amount which was paid from University income (see Table I, page 77),	332.72	$518.24

TABLE No. XVII.

WILLIAM HAYES FOGG ART MUSEUM.

RECEIPTS.

Income of Funds.			
William Hayes Fogg Art Museum balance.			
Interest,		$22.52	
William Hayes Fogg,		2,370.00	
Gray Fund for Engravings,		781.29	
William M. Prichard,		826.89	
John Witt Randall,		1,623.59	
Mary R. Searle,		90.15	$5,714.44
Sale of photographs and catalogue,			9.60
			$5,724.04

PAYMENTS.

From the following Funds and balance:—			
Gray Fund for Engravings.			
Curator,		$250.00	
Collections,		300.00	
Expenses,		140.64	690.64
William M. Prichard, collections,			440.25
John Witt Randall.			
Curator,		$250.00	
Collections,		146.20	
Expenses,		859.36	1,255.56
Mary R. Searle, books,			29.39
William Hayes Fogg Fund and Art Museum balance.			
Director,		$500.00	
Services and wages,		1,373.82	
*Care and cleaning,		1,578.33	
Repairs and improvements,		239.15	
*Fuel,		1,028.16	
*Water,		16.43	
*Lighting,		105.49	
Furniture,		344.66	
Printing,		7.05	
Binding,		3.20	
Insurance on Loeb bronzes,		240.00	
*Telephone,		13.15	
*Stationery and postage,		22.43	
Work on collections,		178.85	
*Electric power,	$29.60		
Less credits,	21.10	8.50	
Supplies and sundries,		84.26	
		$5,743.48	
Less the items marked *, which were paid from University income (see Table I, page 77),		2,772.49	2,970.99
			$5,386.83

TABLE No. XVIII.

JEFFERSON PHYSICAL LABORATORY.

RECEIPTS.

Income of Funds.			
Jefferson Physical Laboratory (balance),		$98.92	
Physical Laboratory Endowment,		3,555.00	
Joseph Lovering,		379.15	$4,033.07
T. Jefferson Coolidge, for Research in Physics.			
Loans to be used in place of income.			
Loan,	$1,325.00		
Interest,	2.22	$1,327.22	
Loan,		2,000.00	3,327.22
			$7,360.29

PAYMENTS.

Research in Physics, from			
T. Jefferson Coolidge Fund,		$1,781.53	
Joseph Lovering Fund,		355.23	$2,136.76
Dynamo,		$84.00	
Instruments and apparatus,		602.00	
Printing,		5.35	
Repairs,		118.11	
Care and cleaning,		1,022.41	
Fuel,		415.21	
Water,		19.68	
Lighting,		365.00	
Telephone,		61.62	
Insurance,		205.24	
Services and wages,		1,348.00	
Electric power,		275.02	
Supplies and sundries,		2.90	
		$4,524.54	
Less the following, paid from College income (see Table II, page 94) :—			
Repairs,	$118.11		
Fuel, services, etc.,	600.00	718.11	3,806.43
			$5,943.19

TABLE No. XIX.

APPLETON CHAPEL.

RECEIPTS.

Income of Funds.		
Fund for Religious Services,	$49.01	
Increase Sumner Wheeler,	2,370.00	
Total of receipts, carried forward,		$2,419.01

TABLE NO. XIX, APPLETON CHAPEL, CONTINUED.

Total of receipts, brought forward,		$2,419.01

PAYMENTS.

Preaching and morning services,	$3,207.95	
Administrator,	400.00	
Organist and Choir-master,	2,000.00	
Choir,	1,600.00	
Repairs and improvements,	161.81	
Care and cleaning,	397.74	
Fuel,	355.09	
Water,	2.82	
Lighting,	232.55	
Furniture,	67.68	
Printing,	6.60	
Music,	274.85	
Binding,	35.50	
Electric power,	17.45	
Repairing and tuning organ,	33.06	
Sundries,	38.44	
	$8,831.54	
Less the amount which was paid from University income (see Table I, page 77),	6,412.53	$2,419.01

TABLE NO. XX.

PHILLIPS BROOKS HOUSE.

RECEIPTS.

Income of Funds.		
Phillips Brooks House Endowment,	$498.03	
John W. and **Belinda L. Randall,**	270.46	
Ralph H. Shepard,	537.71	
Ralph Hamilton Shepard Memorial,	321.70	$1,627.90
		$1,627.90

PAYMENTS.

From **John W.** and **Belinda L. Randall** Fund.		
Social Service Committee,		$200.00
Secretary of **Phillips Brooks** House Association,	$500.00	
Repairs,	141.44	
Care and cleaning,	1,115.32	
Fuel,	412.82	
Water,	62.90	
Lighting,	109.56	
Furniture,	1.12	
Books,	24.63	
Insurance,	70.71	
Receptions,	364.22	
Printing annual report,	51.50	
Rent of piano,	40.00	
Amounts carried forward,	$2,894.22	$200.00

TABLE NO. XX, PHILLIPS BROOKS HOUSE, CONTINUED.

PAYMENTS.

Amounts brought forward,		$2,894.22	$200.00
Social Service Investigation,		50.00	
Supplies and sundries,		140.41	
		$3,084.63	
Less the following items, which were paid from University income (see Table I, page 77): —			
Repairs and improvements,	$141.44		
Care and cleaning,	1,017.82		
Fuel,	412.82		
Water,	62.90		
Lighting,	109.56		
Insurance,	70.71		
Supplies and sundries,	14.16	1,829.41	1,255.22
			$1,455.22

TABLE NO. XXI.

HEMENWAY GYMNASIUM.

RECEIPTS.

Fees for the use of		
Lockers, by students,	$2,959.00	
Gymnasium, by graduates,	60.00	
Gymnasium, by members of the Episcopal Theological School,	108.12	$3,127.12

PAYMENTS.

Salaries,		$5,000.00	
Services and wages,		981.28	
Repairs and improvements,		329.54	
Care and cleaning,		2,394.59	
Fuel,		767.24	
Apparatus,		450.00	
Insurance,		176.51	
Water,		275.90	
Lighting,		584.86	
Printing,		61.22	
Stationery and postage,		15.77	
Telephone,		37.47	
Supplies and sundries,		47.71	
		$11,122.09	
Less the following items: —			
Charged to Divinity School (see Table IV, page 102),	$82.86		
Charged to Law School (see Table V, page 104),	1,605.71		
Charged to The College (see Table II, page 94),	6,306.40	7,994.97	$3,127.12

TABLE No. XXII.

STILLMAN INFIRMARY.

RECEIPTS.

Income of Funds and of Gifts.		
Stillman Infirmary (interest on balance),	$109.64	
Robert Charles Billings, for **Stillman** Infirmary,	2,486.60	
Free Bed Fund of the **Class of 1868,**	265.02	
" " for the **Stillman** Infirmary,	26.83	
Herbert Schurz Memorial Free Bed Fund,	149.22	
Stillman Infirmary Gift. Interest on balance,	322.32	
Henry P. Walcott,	131.58	
Samuel Ward (part),	769.44	$4,260.65
Receipts from Students.		
Infirmary annual fees,	$14,204.00	
Receipts from patients,	4,727.48	18,931.48
		$23,192.13

PAYMENTS.

Services and wages,	$6,183.67	
Janitors and cleaning,	3,087.81	
Repairs and improvements,	1,016.35	
Fuel,	2,296.13	
Water,	277.92	
Lighting,	561.27	
Furniture,	456.28	
Insurance,	90.00	
Stationery and postage,	43.98	
Telephone,	145.08	
Printing,	12.90	
Electric power,	25.90	
Food and supplies,	5,969.35	
Sundries,	90.67	$20,257.31

Table No. XXIII.

SUNDRY FUNDS FOR SPECIAL PURPOSES.

RECEIPTS.

Gift for Capital Account.	
Fund of the **Class of 1846** (additional), ...	$130.02
Income of Funds, Gifts, &c.	
Advancement of Astronomical Science (1901), ...	2,370.00
" " " " (1902) (part, see p. 113),	648.06
Bussey Trust (part, see pp. 100, 102, 110), ...	4,000.00
Class of 1834, ...	60.00
Class of 1844, ...	346.08
" **1846,**	512.63
" **1853,**	149.00
" **1856,**	355.50
Edward W. Codman (part, see p. 80), ...	117.50
Caroline Brewer Croft (part, see p. 106), ...	2,263.81
Eaton Professorship (part, see p. 79), ...	36.25
Calvin and **Lucy Ellis** (part, see p. 104), ...	123.29
George H. Emerson Scholarship (part, see p. 82), . . .	136.57
Henry Flynt (part, see p. 79), ...	15.00
Gospel Church (½ income, see p. 79), ...	160.92
Gurney (part, see p. 79), ...	1,000.00
Charles L. Hancock (part, see p. 100), ...	89.00
Harvard Memorial Society, ...	65.74
Insurance and Guaranty Fund (part, see p. 75), ...	21.68
Henry S. Nourse (part, see p. 75), ...	1,021.80
Robert Troup Paine (accumulating), ...	1,629.83
Professorship of Hygiene (part, see p. 80), ...	3,466.82
George Smith Bequest (part, see p. 125), ...	925.00
Alexander W. Thayer (part, see p. 85), ...	480.00
Charles Wilder, ...	1,896.00
Daniel Williams, ...	790.92
Sarah Winslow, ...	227.57
Woodland Hill. Use of laboratory, ...	750.00
	$23,789.59

PAYMENTS.

From the following Funds and Gifts.		
Advancement of Astronomical Science (1901), annuity, . . .		$2,460.00
" " " " (1902) (part), annuity,		643.08
Bussey Trust (part), annuities, ...		4,000.00
Class of 1853, Secretary of the Class, ...		149.00
" **1856,** " " "		369.00
Edward W. Codman (part). Real estate in Nahant.		
Taxes, ...	$112.50	
Other expenses, ...	5.00	117.50
Caroline Brewer Croft (part), annuity, ...		2,263.81
Eaton Professorship (part), legal expenses, ...		36.25
Calvin and **Lucy Ellis** (part), taxes and expenses, ...		123.29
Calvin and **Lucy Ellis** Aid, legal services, ...		10.00
George H. Emerson Scholarship (part, see p. 90).		
Taxes, ...	$110.68	
Legal expenses, ...	25.00	
Other expenses, ...	.89	136.57
Amount carried forward, ...		$10,308.50

TABLE No. XXIII, SUNDRY FUNDS FOR SPECIAL PURPOSES, CONT'D.

PAYMENTS.

Amount brought forward, ...		$10,308.50
Henry Flynt (part), legal services, ...		15.00
Gifts for Cuban Teachers, expenses, ...		115.00
Gurney (part), annuities, ...		1,000.00
Charles L. Hancock (part), taxes on Chelsea real estate,		89.00
Insurance and Guaranty Fund (part). Estate in Lucas St., Boston.		
Sewer assessment, ...	$38.48	
Less receipts, ...	16.80	21.68
Henry S. Nourse (part). Annuity, ...	$1,000.00	
Legal and other expenses, ...	21.80	1,021.80
Professorship of Hygiene (part), annuity, ...		3,564.57
George Smith Bequest. Annuities, ...	$900.00	
Rent of safe, ...	25.00	925.00
Alexander W. Thayer, annuity, ...		480.00
Charles Wilder, annuities, ...		1,968.00
Daniel Williams.		
Treasurer of Mashpee Indians, ...	$546.28	
" " Herring Pond Indians, ...	264.62	810.90
Sarah Winslow.		
Teacher at Tyngsborough, Mass., ...	$115.11	
Minister " " "	115.10	
Commission on income, credited to University, .	5.69	235.90
Woodland Hill.		
Taxes, ...	$1,081.60	
Legal expenses, ...	75.00	
Services, ...	25.00	
Interest on advances, ...	100.57	1,282.17
		$21,837.52

TABLE No. XXIV.

CONSTRUCTION ACCOUNTS.

RECEIPTS.

Emerson Hall. Interest on balance, ...		$777.95
New University Library Building Gifts. Interest on balance, . . .		1,483.91
George Smith Bequest (accumulating) (part, see p. 124), . . .		13,027.43
Medical School Undertaking.		
J. Pierpont Morgan, for buildings, ...	$249,000.00	
John D. Rockefeller Gift. Interest on balance,	53,281.30	
Gift for Pathological Laboratory. Interest, . . .	263.31	302,544.61
Gifts for Improvements and Additions to The Soldier's Field, . .		10,000.00
		$327,833.90

TABLE NO. XXIV, CONSTRUCTION ACCOUNTS, CONTINUED.

PAYMENTS.

Emerson Hall, construction,			$54,945.14
Langdell Hall (for the Law Library), construction,			16,530.25
Semitic Building and furniture,			4.83
John Simpkins Laboratories, Department of Mining and Metallurgy, equipment,			127.70
Medical School Undertaking.			
From Gifts for Pathological Laboratory,		$244.89	
Real Estate.			
Additional land,	$1,500.00		
Taxes accrued before purchase,	11.04		
Legal services,	20.65		
Surveys and plans,	72.50		
Interest on advances,	15,395.15	16,999.34	
Construction.			
Buildings,	$619,716.00		
Interest on advances,	21,519.51	641,235.51	658,479.74
Stillman Infirmary Gift. Construction, main building,			2,313.21
Gifts for Improvements and Additions to The Soldier's Field.			
Stadium. Interest on advances,			2,779.24
			$735,180.11

TABLE NO. XXV.

SUNDRY ACCOUNTS.

RECEIPTS.

Bursar's Sundry Accounts,		$462,584.45
Advances from General Investments to		
Anonymous Gift for Observatory,	$875.13	
Book Fund of the **Class of 1881**,	20.25	
Botanic Department,	902.67	
Uriah A. Boyden Fund,	2,491.75	
Classical Publication Fund of the **Class of 1856**,	109.73	
Edwin Conant Book Fund,	10.00	
Dental School Real Estate,	53.06	
Department of Economics,	60.00	
Emerson Hall,	3,368.81	
William Hayes Fogg Art Museum,	93.68	
Lloyd McKim Garrison Fund,	6.04	
R. M. Hodges Fund,	247.56	
Medical School,	5,553.39	
Medical School Undertaking,	432,321.19	
Peabody Museum of American Archaeology and Ethnology,	136.75	
Schlesinger Fund,	1.62	
Sever Book Fund,	154.98	446,406.61
Amount carried forward,		$908,991.06

TABLE NO. XXV, SUNDRY ACCOUNTS, CONTINUED.

RECEIPTS.

Amount brought forward, ...			$908,991.06
Gains and Losses for General Investments. Gain on sales.			
$100,000 Chicago & Alton 4% Coll. Notes of 1907,		587.50	
154,500 Eastern 1st M. 6's of 1906, ...		458.87	
100,000 Missouri Pacific 5% Notes of 1906, . .		1,000.00	
50,000 Penn'a Co. Coll. Tr. 4½% Notes of 1905,		401.25	2,447.62
Gains from changes of Special Investments.			
Edward W. Codman Fund.			
Gain on sales as follows:—			
10 shares Boston & Albany, ...	$48.75		
55 " Boston & Lowell, ...	268.12		
63 " Boston & Maine, ...	181.12		
29 " Old Colony, ...	114.00		
37 " Père Marquette, preferred,	69.37		
25 " Hotel Trust, ...	115.63	796.99	
Price Greenleaf Fund.			
Gain on sale of 317 shares Boston & Maine, com.,		6,077.36	
Henry S. Nourse.			
Gain on sale of 3 shares Penn'a Steel Co., com.,		146.62	
George Smith Bequest.			
Gain on sale of 115 shares Boatmen's Bank of St. Louis, ...		7,947.50	14,968.47
			$926,407.15

PAYMENTS.

Bursar's Sundry Accounts, ...		$470,521.07
Advances from General Investments, repaid by		
T. Jefferson Coolidge Fund, ...	$1,076.03	
Department of Education Library, ...	91.64	
Gifts for Improvements and Additions to The Soldier's Field, on account of the Stadium, . .	7,220.76	
James Loeb's Gift, ...	6.81	
Sales Book Fund, ...	5.69	
Thomas W. Ward Book Fund, ...	114.45	8,515.38
Losses from changes of Special Investment.		
Daniel A. Buckley Fund.		
Loss on sale of real estate in Cambridge, . . .	$51.02	
David A. Wells Fund.		
Loss on sale of 10 shares Walter A. Wood M. & R. Machine Co., ...	441.38	492.40
Sundry balances, ...		53.70
		$479,582.55

BALANCED SUMMARY OF THE TABLES.

Table.		Receipts.	Payments.
I.	University,	$203,696.01	$129,962.84
II.	College,	2,360,618.49	904,998.53
III.	Library,	67,141.24	78,447.70
IV.	Divinity School,	40,843.96	43,812.48
V.	Law School,	265,200.24	99,521.62
VI.	Medical School,	314,580.74	152,660.29
VII.	Dental School,	31,311.27	23,718.28
VIII.	Bussey Institution,	18,920.55	17,237.90
IX.	Arnold Arboretum,	47,359.18	29,166.53
X.	Botanic Garden and Botanic Museum,	10,296.48	10,720.34
XI.	Gray Herbarium,	12,177.51	11,325.20
XII.	Observatory	57,175.97	58,622.20
XIII.	Museum of Comparative Zoölogy,	40,948.55	38,313.10
XIV.	Peabody Museum of American Archaeology and Ethnology,	11,007.99	10,600.00
XV.	Semitic Museum,	11,884.03	8,281.62
XVI.	Germanic Museum,	20,338.39	518.24
XVII.	William Hayes Fogg Art Museum,	5,724.04	5,386.83
XVIII.	Jefferson Physical Laboratory,	7,360.29	5,943.19
XIX.	Appleton Chapel,	2,419.01	2,419.01
XX.	Phillips Brooks House,	1,627.90	1,455.22
XXI.	Hemenway Gymnasium,	3,127.12	3,127.12
XXII.	Stillman Infirmary	23,192.13	20,257.31
XXIII.	Sundry Funds for Special Purposes,	23,789.59	21,837.52
XXIV.	Construction Accounts,	327,833.90	735,180.11
XXV.	Sundry Accounts,	926,407.15	479,582.55
		$4,834,981.73	$2,893,095.73

Total amount of receipts,	$4,834,981.73	
Less gifts for capital account,	1,859,298.23	$2,975,683.50
Total amount of payments,		2,893,095.73
Balance, which is the net increase of Funds and balances, excluding gifts for capital, as is also shown on page 7,		$82,587.77

Certificate of the Committees of the Corporation and Overseers of Harvard College, for examining the Accounts of the Treasurer.

The committees appointed by the Corporation and Overseers of Harvard College to examine the accounts of the Treasurer for the year ending July 31, 1906, have, with the assistance of an expert chosen by them, examined and audited the Cash-book and Journal covering the period from August 1, 1905, to July 31, 1906, inclusive, and have seen that all the bonds, notes, mortgages, certificates of stock, and other evidences of property, which were on hand at the beginning of said year, or have been received by him during said year, are now in his possession, or are fully accounted for by entries made therein; they have also noticed all payments, both of principal and interest, indorsed on any of said bonds or notes, and have seen that the amounts so indorsed have been duly credited to the College.

They have in like manner satisfied themselves that all the entries for moneys expended by the Treasurer, or charged in his books to the College, are well vouched; such of them as are not supported by counter entries being proved by regular vouchers and receipts.

They have also seen that all the entries for said year are duly transferred to the Ledger, and that the accounts there are rightly cast, and the balances carried forward correctly to new accounts.

(Signed)

HENRY P. WALCOTT,	*Committee on the part of the Corporation.*
MOSES WILLIAMS, WILLIAM C. ENDICOTT, GRAFTON ST.L. ABBOTT, ALLAN FORBES, JOHN L. SALTONSTALL, RICHARD C. STOREY.	*Committee on the part of the Board of Overseers.*

BOSTON, January 5, 1907.

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Titles which appear in the table of Funds and Balances, beginning on page 58, are in full face type.

Figures in *italics* represent payments; in Roman type, receipts.

Two or more entries on a page are indicated by a small figure at the right of the page number: 20^{3} indicates three entries of receipts on page 20.

Abbreviations are used as follows: —

A.,	Arnold Arboretum;
B.,	Book Funds;
Be.,	Beneficiary and Loan Funds;
C.,	College;
D.,	Divinity School;
F.,	Fellowship Funds;
L.,	Law School;
L.S.S.,	Lawrence Scientific School.
M.,	Medical School;
M.S.U.,	Medical School Undertaking;
O.,	Observatory;
P.,	Professorship Funds;
Pr.,	Prize Funds;
S.,	Scholarship Funds;
U.,	University.

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